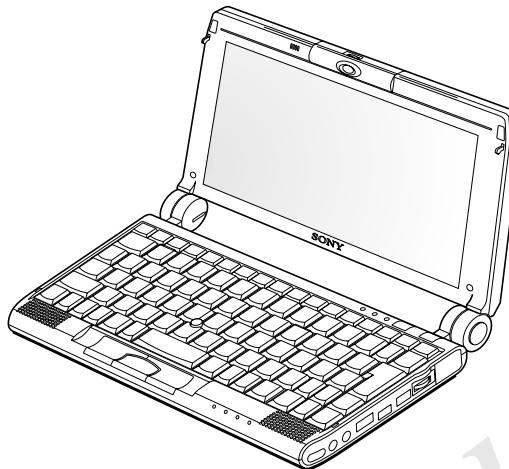


PCG-C1XS

SERVICE MANUAL

US Model
Canadian Model



i S400

Confidential

Notebook Computer

SONY®

9-872-053-11

9-872-053-11

2000E1605-1

SONY®

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Sony Corporation
Information Technology Company

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Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100°C (212°F) or incinerate.

Dispose of used battery promptly.

Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilatation or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.



Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify areas requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the Δ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original design when mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure to duplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives are easily damaged by vibration. Always handle with care.

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- Abbreviations
UC : US model / Canadian model

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PCG-C1XS (UC)

SECTION 1

CHAPTER 1 — OPERATION

Section 1-1: Read Me First

SONY®

Read Me First

PCG-C1XS

Frequently Asked Questions (FAQs)

Q: *How do I recover applications or drivers that came with my computer if the files are corrupted or deleted?*

A: The Application Recovery CDs allow you to reinstall individual applications and device drivers if they are corrupted or accidentally erased. You need to connect the optional PCGA-CD51 CD-ROM drive to use the System and Application Recovery CDs. Reinstalling an individual device driver or software title may correct a problem you are experiencing with your computer, and you may not need to recover the entire contents of your hard drive. If you do need to reinstall all the software titles that shipped with your computer, use the System Recovery CD(s).

You must be in Windows to run the Application Recovery CD(s). The application will not run from DOS. If you have any questions on using the Application Recovery CD(s), contact Sony Customer Support at <http://www.sony.com/pcsupport>.

To use the Application Recovery CD(s)

- 1 Turn on your computer. If your computer is already on, close all applications.
- 2 When the Windows desktop appears, insert the Sony Application Recovery CD in the CD-ROM drive. The Application Recovery utility loads automatically.
- 3 When the Application Recovery menu appears, follow the on-screen instructions to complete the recovery process.



Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

Q: *Why isn't the CD-ROM drive reading a CD?*

A: After inserting a CD, you must wait a few seconds for the CD to be detected before trying to access it. If your drive reads some CDs but not others, check the shiny side of the disc for dirt or scratches. You may also need to clean the CD-ROM drive lens with a CD-ROM cleaner.

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Q: *How do I set up faxing capability in Windows® 98?*

A: Windows 98 does not provide a built-in fax utility. Sony has included the Symantec WinFax™ Basic Edition software for your faxing needs. To set up WinFax Basic, click the Start button, point to Programs, point to SYMANTEC WinFax Basic Edition, and then select Configure WinFax Basic Edition. Follow the on-screen instructions to configure the fax utility.

Q: *How do I change the video resolution of my display?*

A: From the Start menu, select Settings, and click Control Panel. Click the Display icon and select Settings. Move the Screen area slider to change the resolution.

Q: *Why does Windows lock up during shut down?*

A: Windows may not shut down properly for many reasons, including incompatible or conflicting drivers, damaged files, or non-responsive hardware. For troubleshooting information, you can search Windows 98 Help. From the Start menu, select Help, click the Contents tab, click Troubleshooting, and then click Windows 98 Troubleshooters. Click the subject for which you want information, and then answer the questions that are appropriate for your problem.

Q: *Why is my system running slowly?*

A: The speed varies depending on the number of applications that are open and running. Close any applications that you are not currently using. Increasing the system memory may also help. Sony computer supplies, accessories, and peripherals can be purchased from your dealer or by contacting Sony at <http://www.sony.com/accessories>. For information on installing memory, go to <http://www.ita.sel.sony.com/support/pc/>.

Q: *Why is there no sound in any application?*

A: There are independent controls for your system volume.

- There is volume control  in the Windows task tray. Click the icon and slide the level bar up to increase the volume.
- In addition to adjusting the volume, check that the Mute check box is not selected in the volume control . Remove the check from the Mute box or press the F3 key while holding down the F3 key.
- If the volume is set to Minimum, press the F4 key while holding down the Fn key, and then press the up arrow or the right arrow to turn up the volume.

Supplementary Information

Recovering Microsoft® Word 2000

If you recover your operating system using the System Recovery CD, Word 2000 will not be recovered. Use the Word 2000 CD-ROM to recover this application. You will need the Certificate of Authenticity number from the front of the Word 2000 manual.

Power Management Tips

- If you find that an application exhibits unexpected behavior (such as reduced video quality) after returning from a reduced power consumption mode, you should close that application before your computer enters a power saving mode.
- If your battery level falls to less than 10 percent, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully-charged battery.

If Your Computer Does Not Start

- Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer indicates that the power is on.
- Check that the battery is inserted properly and that it is charged.
- Make sure there is no diskette in the floppy disk drive.
- Confirm that the AC adapter and all cables are connected firmly, as described in "Connecting Peripheral Devices" in the *VAIO® C1 PictureBook™ Computer User Guide* that came with your computer.
- If you plugged the computer into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- Moisture condensation may have occurred. Do not use the computer for at least one hour and then turn on the computer.
- When the internal backup battery is low on power, it may not be able to boot your system properly. You can correct this situation as follows: Plug in the AC adapter and allow the computer to charge for one hour while the power is on. Do not use the computer during this time. After one hour, turn the power off and then on again. To charge the internal backup battery fully, keep the AC adapter connected for more than 24 hours after turning the power on. You can use your computer while charging the battery.

DVgate™ Motion and Digital Video Captures

If your system displays the message, "Failed to record to DV deck, Please check deck's power status, cable connection and so on.", while you are recording images to a digital video device using DVgate Motion, close all open applications, and restart your computer. Frequent recording of images to a digital video device while using DVgate Motion sometimes causes this to occur.

For more information on DVgate Motion, see the DVgate online help.

Hard Drive Partition

In order to improve the performance of your computer's DVgate™ Motion Software, the hard disk drive on your computer has been formatted with two partitions, C and D. The C drive partition is approximately 8 GB and the D drive partition is approximately 4 GB. DVgate Motion saves files to the D partition. This prevents large video captures from consuming the available space on your C partition. To maintain optimum performance of DVgate Motion, you should defragment your D partition regularly. See the DVgate online help for more information.

Hardware Temperature

The AC adapter or the bottom panel of your computer may become warm. This is the result of CPU operation and does not indicate a malfunction of the computer. The actual temperature varies depending on the peripherals and software you are using and the length of time that the unit is in use. The AC adapter may also become warm when the computer is off and the battery is charging.

! Do not cover the computer or adapter with clothing, blankets, or any other material when the computer is turned on. Covering these components may result in damage to your unit.

When connecting the supplied AC adapter to an AC outlet that has more than two outlets, do not plug the AC adapter into an outlet that is obstructed by another adapter. To prevent fire or electrical shock, the adapter must be firmly plugged into the outlet. If necessary, use a separate AC outlet.

Switching Between NTSC and PAL Standards

Your computer is designed to allow you to switch between NTSC and PAL standards. For details on switching from one standard to another, go to the Knowledge Database at www.sony.com/pcsupport.

Using Smart Capture to Send Still and Video Images by E-mail

To send images by e-mail using the MAIL button in Smart Capture, you must first set up your e-mail software to send and receive mail.

If you use an online service provider such as America Online or other non-MAPI-compliant e-mail software, use the SAVE button to save the image as a file and then attach the file to your e-mail message.



If images do not appear in the Smart Capture window while you are using the MOTION EYE camera, the monitor mode, color palette, or other factors may be causing low video memory. To increase available memory, close any open applications that may be using the MOTION EYE software. If images are still not visible, click Start, point to Settings, click Control Panel, and then select MOTION EYE. In the window that displays, click Default, and then click OK. If none of the above procedures work, restart your computer.

About the Software on Your Computer

Your C1 PictureBook Computer is ready to help you work, play, learn, and communicate as soon as you turn it on. This section gives you an overview of the activities you can perform with your software titles. For support information, see "For Answers to Your Software Questions" on page 12.

Adobe Acrobat® Reader

Adobe Systems Inc.

Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe Portable Document Format (PDF), an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

Adobe PhotoDeluxe® Business Edition

Adobe Systems Inc.

Create amazing photo effects with Adobe PhotoDeluxe. Without learning complex software, you can enhance, restore, and be creative with your photos. Includes built-in guided activities, stock photos, clip art, and templates to assist you.

America Online®

America Online

America Online is the world's most popular Internet online service. Stay in touch with family and friends with Easy-to-Use E-mail, manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

AT&T WorldNet® Service

AT&T

Fast, reliable Internet access from AT&T WorldNet. AT&T WorldNet provides web-based e-mail, a personalized start page from Excite, easy access to the Excite search engine, free Web pages, online and live agent technical support, instant messaging, and special shopping discounts at Market Square.

CompuServe® 2000

CompuServe, Inc.

The all new CompuServe 2000 delivers a powerful tool for Internet users who want serious and timely information, in-depth research, and professional communities backed by state-of-the-art technologies, including high-speed access and powerful e-mail messaging.

DVgate™ 2.0*Sony Electronics*

Connect a digital video camera recorder to the i.LINK® connector and capture your own video clips or still images. You can edit the clips from your video, add others, and combine clips into new movie segments. You can also save your still images in a variety of popular file formats.

EarthLink TotalAccess®*EarthLink Network, Inc.*

An Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a Personal Start Page, a free 6MB Web site, a member magazine, and 24-hour technical support.

McAfee® VirusScan®*Network Associates, Inc.*

Protect your computer from viruses. VirusScan can detect viruses from floppy disks, Internet downloads, e-mail attachments, intranets, shared files, CD-ROMs, and online services.

Media Bar™*Sony Electronics*

Media Bar software is your all-in-one solution for audio/video playback. Media Bar software handles all common computer multimedia formats and controls selected Sony devices. In addition to audio/video library cataloging and playlist management, Media Bar software includes digital video quality control and effects features. Media Bar software seamlessly integrates a variety of new media formats with an easy-to-use software interface.

Microsoft® Internet Explorer for Windows® 98*Microsoft Corporation*

Internet Explorer delivers the Web the way you want it. It's safe, easy to use, and you can personalize how you access the Web. Outlook Express and other tools in Internet Explorer also help you have a great experience when you're on the Web!

Microsoft® Outlook® Express*Microsoft Corporation*

Outlook Express, the messaging tool that takes your e-mail and newsgroup communications to new heights! Outlook Express is easy to set up and use, and provides you with secure, personalized, and complete features that make creating, sending, and reading your e-mail a more rich and dynamic experience.

Microsoft® Word 2000*Microsoft Corporation*

Microsoft Word 2000 makes it easy to create common Web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends Word's ease-of-use to the Web and e-mail. Word 2000 also extends that ease of use to international users, making it easy to create multilingual documents.

MindSpring® Internet Desktop*MindSpring Enterprises, Inc.*

The MindSpring Internet Desktop offers you access to different areas of the Internet from one convenient program. With a single click on the MindSpring Internet Desktop, you can easily search the Internet, send and receive e-mail, access news and weather, and more.

Netscape Communicator®*Netscape Communications*

Netscape Communicator is the all-in-one Internet tool that makes it easy to browse the Web, send Internet e-mail, chat, read newsgroups, and compose great web documents.

PictureGear™*Sony Electronics*

This image management software displays images from your hard drive, a Sony Digital Still Camera, or a Sony Mavica® camera. The images appear in a convenient light-table format, so that you can easily view the contents of an entire folder.

Prodigy Internet®*Prodigy Communications Corporation*

An Internet service that helps you find what you need online faster and smarter. Prodigy delivers powerful online content such as sports scores, stock quotes, news, and easy access to Excite™ plus a personal e-mail account and quality customer service, all at a competitive price.

Quicken® 2000 Basic*Intuit, Inc.*

Quicken is the fastest, easiest way to organize your finances. Quicken works just like your checkbook, so it's easy to learn and use. Quicken manages all of your finances, bank accounts, credit cards, investments, loans. You can even pay your bills online.

Smart Capture*Sony Electronics*

Smart Capture is the software that allows you to operate your computer's built-in camera. Smart Capture lets you use the built-in camera as a digital or video camera, recording still images, motion, and sound. Whatever you record with the camera can be viewed with the built-in movie player or still-picture viewer.

Smart Connect*Sony Electronics*

Smart Connect allows you to use an i.LINK® cable to connect your VAIO computer to another VAIO computer that supports Smart Connect. You can then use one computer to copy, delete, and edit files on the other computer. You can also print from a printer attached to either computer, or share an internet connection.

Smart Label*Sony Electronics*

This tool allows you to record your voice and play it back at any time to remind you of important information, such as telephone numbers or appointments. It can also be used as a normal text memo pad. It can record a voice memo up to 1000 seconds long. You can combine this with pictures and/or text to create a memo that you can place on your computer desktop.

Smart Publisher*Sony Electronics*

Smart Publisher makes it easy for you to combine pictures, movies, and text to create web pages and send them to the Internet using e-mail or FTP.

Smart Write*Sony Electronics*

A word processor that allows you to create documents that incorporate pictures, movies, and sound. With Smart Write, you can record your voice right into the page and draw directly onto your documents with the pointing device.

VAIO Action Setup*Sony Electronics*

VAIO Action Setup manages the settings for your computer's Jog Dial control, internal timer, i.LINK interface, and AutoAlert E-mail Notification System. For more information on VAIO Action Setup, see the *VAIO® C1 PictureBook™ Computer User Guide*.

WinFax™ Basic Edition*Symantec Corporation*

WinFax Basic Edition incorporates an easy-to-use user interface that allows you to send and receive faxes easily. Upgrade to WinFax Pro to receive additional features.

About Your Recovery CDs

Application Recovery CD(s)

Sony Electronics

The Application Recovery CD program allows you to reinstall individual applications and device drivers. Use to restore corrupted or accidentally erased files.

System Recovery CD(s)

Sony Electronics

The System Recovery CD program allows you to restore the software titles that shipped with your computer if they become corrupted or are erased accidentally. It can be used only to restore the hard disk of the Sony computer you purchased.

For Answers to Your Software Questions

Acrobat® Reader, Adobe PhotoDeluxe® Business Edition (Adobe Systems Incorporated)

| | |
|----------|--|
| Web site | http://www.adobe.com/ |
| phone | 206-628-2746 (fee-based support) |
| fax | 206-628-5737 |
| e-mail | techdocs@adobe.com |
| hours | M-F, 6 AM-5 PM PT |

America Online® (America Online)

| | |
|----------|---|
| Web site | http://www.aol.com/ |
| phone | 800-827-3388 |
| hours | 7 days a week, 24 hours a day |

AT&T WorldNet® Service (AT&T)

| | |
|----------|--|
| Web site | http://www.att.net |
| phone | 800-400-1447 |
| e-mail | worldnet@attmail.com |
| hours | 7 days a week, 24 hours a day |

CompuServe® 2000 (CompuServe Interactive Services)

| | |
|----------|---|
| Web site | http://www.compuserve.com/ |
| phone | 800-848-8990 |
| hours | M-F, 8 AM - 1 PM ET, S-S 10 AM - 10 PM ET |

EarthLink® TotalAccess® (EarthLink Network, Inc.)

| | |
|----------|---|
| Web site | http://help.earthlink.net/techsupport/ |
| phone | 800-395-8410 |
| e-mail | support@earthlink.net |
| hours | 7 days a week, 24 hours a day |

McAfee® VirusScan® (Network Associates, Inc.)

| | |
|----------|---|
| Web site | http://support.mcafee.com |
| phone | 408-988-3832 |
| e-mail | cybr@nai.com |
| hours | M-F 9AM-5PM Central Time |

MindSpring® Internet Desktop (MindSpring)

| | |
|----------|---|
| Web site | http://help.mindspring.com/support |
| phone | 800-719-4660 |

Netscape Communicator® (Netscape Communications Corporation)

| | |
|----------|---|
| Web site | http://www.netscape.com/ |
| phone | 888-4SONYPC (888-476-6972)* |
| hours | 7 days a week, 24 hours a day |

*Support from 1-888-4SONY PC is free of charge for 90 days after the original date of purchase.

Prodigy Internet® (Prodigy Communications Corporation)

| | |
|----------|---|
| Web site | http://www.prodigy.com/ |
| phone | 800-PRODIGY |
| hours | 7 AM - 3 AM ET |

Quicken® Basic (Intuit Inc.)

| | |
|----------|---|
| Web site | http://www.intuit.com/support |
| phone | 900-555-4688 |
| hours | 7 days a week, 24 hours a day |

WinFax™ Basic Edition (Symantec Corporation)

| | |
|----------|---|
| Web site | http://www.symantec.com/techsupp/winfax/ |
| phone | Standard Care 716-843-1090 (U.S.) or 416-441-3301 (Canada). Standard Care support is free for all registered users for 90 days from the date of their first call. |
| hours | M-F, 9 AM - 7 PM ET |

*Windows® 98 Operating System, Word, Internet Explorer, Outlook Express
(Microsoft Corporation)*

| | |
|----------|---|
| Web site | http://www.microsoft.com/support/ |
| phone | 888-4SONYPC (888-476-6972)* |
| hours | 7 days a week, 24 hours a day |

*Support from 1-888-4SONY PC is free of charge for 90 days after the original date of purchase.

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Section 1-2: VAIO C1 PictureBook Computer User Guide

SONY®

**VAIO® C1 PictureBook
Computer User Guide**

PCG-C1XS



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Notice to Users

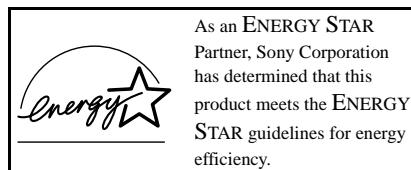
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Updates and additions to software may require an additional charge. Subscriptions to online service providers may require a fee and credit card information. Financial services may require prior arrangements with participating financial institutions.



As an ENERGY STAR Partner, Sony Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The International ENERGY STAR Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles and copiers. Their standards and logos are uniform among participating nations. ENERGY STAR is a U.S. registered mark.

Sony, iLINK, Jog Dial, Motion Eye, VAIO, and the VAIO logo are trademarks of Sony Corporation. Windows and the Windows 98 logo are registered trademarks of Microsoft Corporation.

All other trademarks are trademarks of their respective owners

Owner's Record

The model number and serial number are located on the bottom of your VAIO® PCG-C1XS PictureBook Computer. Record the serial number in the space provided here. Refer to the model and serial numbers when you call your Sony Service Center.

Model Number: PCG-C1XS

Serial Number: _____

Safety Information

WARNING

- To prevent fire or shock hazard, do not expose your notebook computer to rain or moisture.
- To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- Never install modem or telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using the modem during an electrical storm.
- Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.
- A socket outlet should be as close as possible to the unit and easily accessible.

! For CD-ROM: The use of optical instruments with the CD-ROM drive will increase eye hazard.

! L'utilisation d'instruments optiques avec cet appareil augmente le risque de blessures aux yeux.

! For DVD-ROM: As the laser beam used in the DVD-ROM drive is harmful to the eyes, do not attempt to disassemble the drive cabinet. Refer servicing to qualified personnel only.

! Comme le faisceau laser utilisé par ce lecteur DVD-ROM est dangereux pour les yeux, ne tentez pas de démonter le boîtier. Confiez l'entretien de cet appareil exclusivement au personnel qualifié.

! CAUTION: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

! ATTENTION: Pour réduire le risque d'incendie, utiliser seulement un cordon de télécommunication n° 26 AWG ou plus gros.

AVERTISSEMENT

- Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.
- Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.
- L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.

For questions regarding your product or for the Sony Service Center nearest you, call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada.

The number below is for FCC related matters only.

Regulatory Information

Declaration of Conformity

Trade Name: SONY

Model No: PCG-C1XS

Responsible Party:
Sony Electronics Inc.

Address:
1 Sony Drive
Park Ridge, NJ 07656

Telephone No.: 201-930-6972

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that

interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product.

Operation with non-compliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This modem uses the USOC RJ-11 telephone jack.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact 1-888-4SONYPC (1-888-476-6972), or write to the Sony Customer Information Center, One Sony Drive, Park Ridge, NJ 07656 for repair and/or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request that you remove the equipment from the network until the problem is resolved.

Repair of this equipment should be made only by a Sony Service Center or Sony authorized agent. For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972).

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state and possible provincial tariffs. (Contact the state or provincial utility service commission, public service commission, or corporation commission for information.)

Telephone Consumer Protection Act of 1991 (United States)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your facsimile machine, see your fax software documentation.

Telephone Consumer Guidelines (Canada)

Please refer to your telephone directory under 'Privacy Issues' and/or 'Terms of Service.' For more detailed information, please contact:

CRTC
Terrasses de la Chaudière, Tour centrale
1 promenade du Portage, 5 étage Hull PQ
K1A 0N2.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

DISPOSAL OF LITHIUM ION BATTERY

You can return your unwanted lithium ion batteries to your nearest Sony Service Center or Factory Service Center.



In some areas the disposal of lithium ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada.

- ! Do not handle damaged or leaking lithium ion batteries.**
- ! Ne pas manipuler les batteries au lithium-ion qui fuient ou sont endommagées.**
- ! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.**
- ! Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.**

! The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 212°F (100°C) or incinerate. Dispose of used battery promptly. Keep away from children.

! La manutention incorrecte du module de batterie de cet appareil présente un risque d'incendie ou de brûlures chimiques. Ne pas démonter, incinérer ou exposer à une température de plus de 100°C. Évacuer promptement la batterie usée. Garder hors de portée des enfants.

INDUSTRY CANADA NOTICE

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection.

The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Equipment malfunctions or any repairs or alterations made by the user to this equipment may give the telecommunications company cause to request that the user disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The Ringer Equivalence Number for this equipment is 0.1.

AVIS DE L'INDUSTRIE CANADA

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué.

Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface.

La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5. L'indice d'équivalence de la sonnerie de ce matériel est 0.1.

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Welcome

Congratulations on your purchase of the VAIO® C1 PictureBook™ Computer with integrated digital camera. Sony has combined leading-edge technology in audio, video, computing, and communications to provide you with state-of-the-art personal computing.

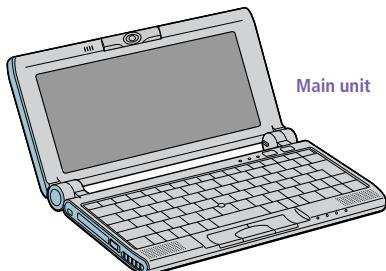
Features

 For a complete description of the specifications of your VAIO® C1 PictureBook, see page 76.

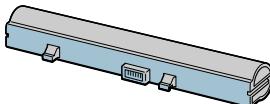
- Exceptional performance** - Your computer includes a fast Intel® processor.
- Portability** - The rechargeable battery pack provides hours of use without AC power.
- Sony audio and video quality** - A high-resolution LCD screen enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.
- Windows® 98 Second Edition** - Your system includes one of the latest operating systems from Microsoft.
- Communications:** Access popular online services, send and receive e-mail, browse the Internet, and use the dialing and fax features.

Unpacking Your VAIO C1 PictureBook Computer

Remove the following hardware items from the box:



Main unit



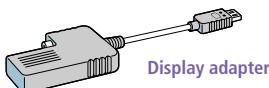
Rechargeable
battery pack



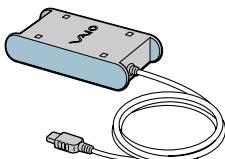
Floppy disk drive



Spare stick covers



Display adapter



AC adapter



Power cord

Manuals

- ❑ The *VAIO® C1 PictureBook Computer User Guide* (this manual) contains information on how to get the most from your computer, find help and solve common problems. It also includes product specifications.
- ❑ *Read Me First* contains Frequently Asked Questions, the most up-to-date information on using your computer, and software information.
- ❑ The *Consumer Information Guide* contains ergonomic considerations and your computer's limited warranty statement.
- ❑ The *Microsoft® Windows® 98 Second Edition Getting Started* manual explains how to use the basic features of the Windows operating system.

Software CDs

- Microsoft® Word 2000

Recovery CDs

- System Recovery CD(s)
- Application Recovery CD(s)

 To use these recovery CDs, you need to purchase the PCGA-CD51 CD-ROM drive.

Other

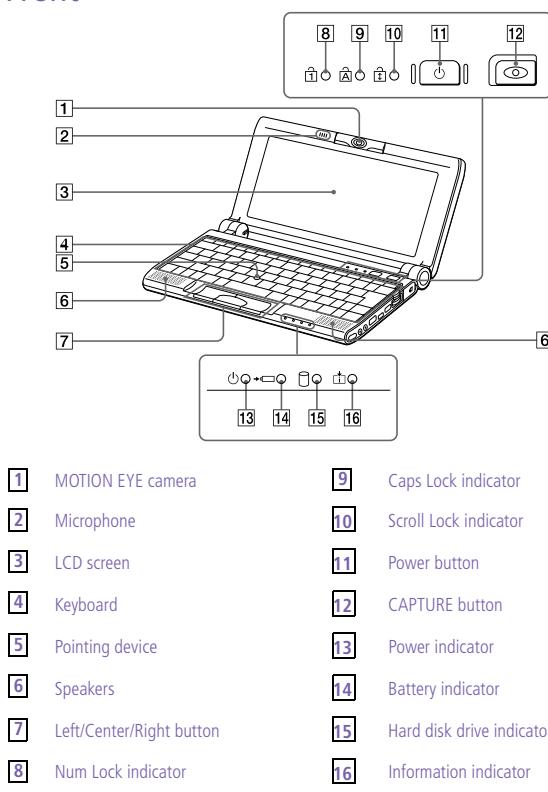
- Setting up your VAIO® C1 PictureBook™ Computer (poster)
- Packet containing special product offers

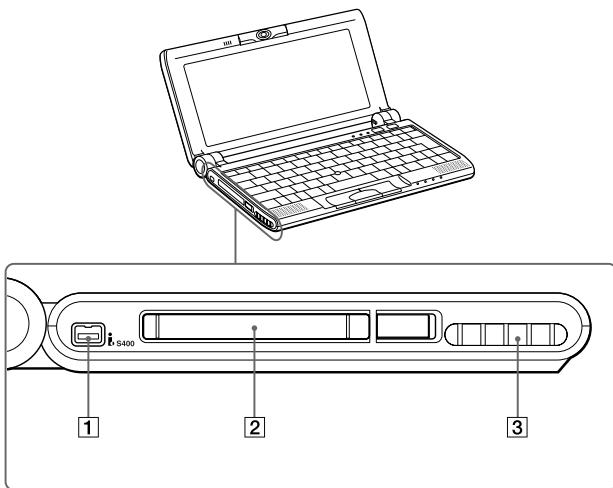
Setting Up Your VAIO C1 PictureBook™ Computer

This section describes how to start using your computer and how to use your computer's internal and external devices, such as the pointing device and floppy disk drive.

Locating the Controls and Connectors

Front



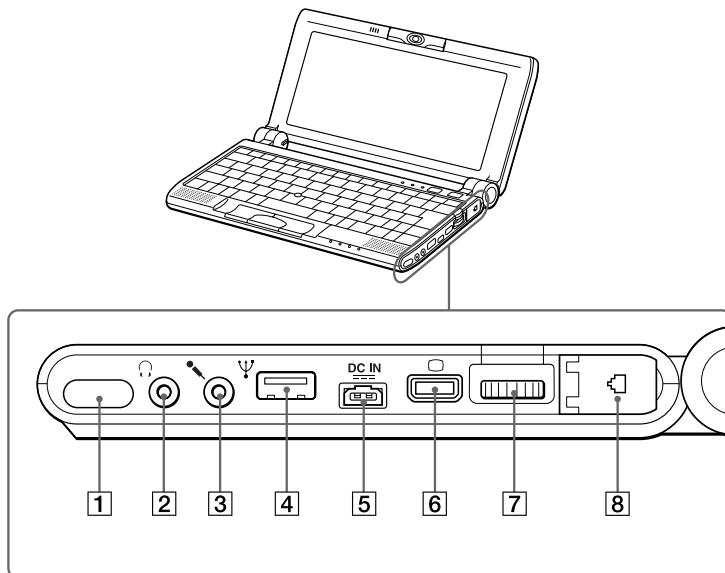
Left

[1] iLINK port, S400 

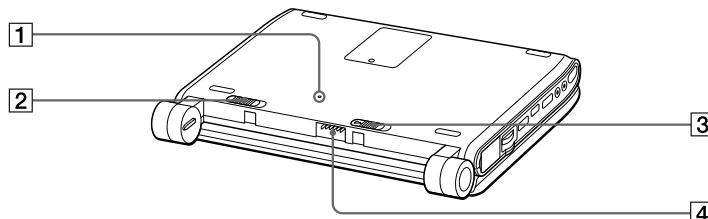
[2] PC card slot 

[3] Ventilation duct 

 There is a ventilation duct located near the PC card slot. Do not cover the ventilation duct when your computer is on.

Right

- | | |
|--------------------------|---|
| [1] Infrared port | [5] DC In (page 8) |
| [2] Headphone connector | [6] Mini VGA/TV Out Connector (page 47) |
| [3] Microphone connector | [7] Jog Dial Control (page 26) |
| [4] USB connector | [8] Modem Jack |

Bottom

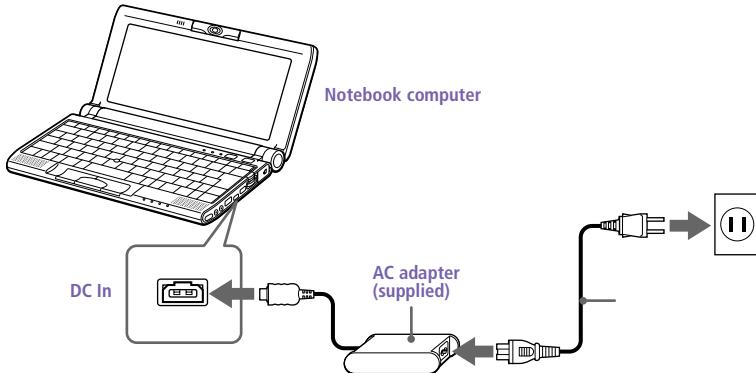
- | | |
|-------------------------------------|---------------------------------|
| [1] Reset switch | [2] Battery lock lever (page 9) |
| [3] Battery release lever (page 12) | [4] Battery connector (page 10) |

Connecting a Power Source

You can use either AC power or a rechargeable battery pack as a power source.

Using the AC Adapter

- 1 Plug the cable attached to the AC adapter into the DC In connector on the computer.
- 2 Plug one end of the power cord into the AC adapter.
- 3 Plug the other end of the power cord into an AC outlet.



Use your notebook only with the supplied AC adapter.

To disconnect your notebook completely from the main power source, unplug the AC adapter.

Make sure that the electrical outlet is easily accessible.

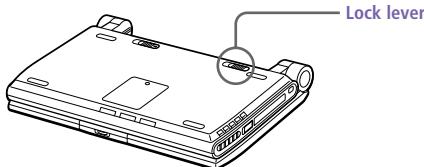
Using Battery Power

You can use a battery pack as a source of power. The PCGA-BP51A battery pack that comes with your computer is not fully charged at the time of purchase. Follow the steps below to insert and charge the battery pack.

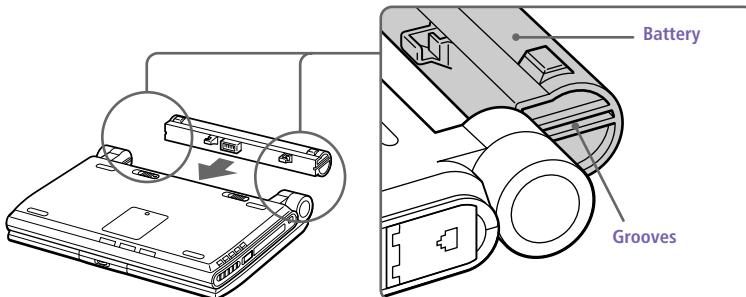
 You can also purchase the high-capacity PCGA-BP52/BP54 battery pack as a separate option.

To insert the battery pack

- 1 Make sure the Lock lever on the bottom of the computer is in the release position.



- 2 Align the grooves and tabs on the battery with the notches and tabs on the back of the computer. Slide the battery towards the computer until it clicks into place.



- 3 Slide the Lock lever into the lock position.

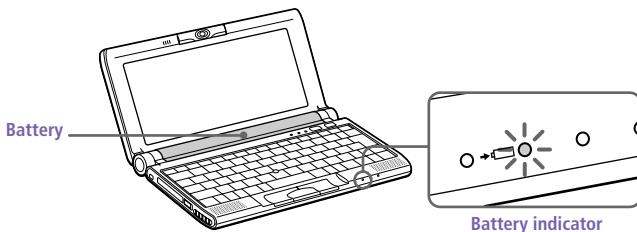
To charge the battery pack

- 1 Connect the AC adapter to the computer.
- 2 Insert the battery pack.

The computer automatically charges the battery (the battery indicator light flashes in a double blink pattern as the battery charges). When the battery is 85 percent full, the battery indicator light turns off. This process takes approximately one and one half hours. To charge the battery completely, continue charging for an additional hour.

The  battery indicator indicates the status of the battery pack.

 You can charge the battery pack with the optional battery charger PCGA-BC5. See the battery charger manual for more information.



| Battery Indicator Light Status | Meaning |
|--------------------------------|--------------------------------------|
| On | The computer is using battery power. |
| Single blink | The battery is running out of power. |
| Double blink | The battery is charging. |
| Off | The computer is using AC power. |



Both the battery and power indicators blink when the battery is running out of power.

Keep the battery pack in the computer while it is directly connected to AC power. The battery pack continues to charge while you are using the computer.

If your battery level falls to less than 10%, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully-charged battery.

You can extend battery life by changing the power management modes in the PowerPanel utility. See "Using Power Saving Modes" on page 41.

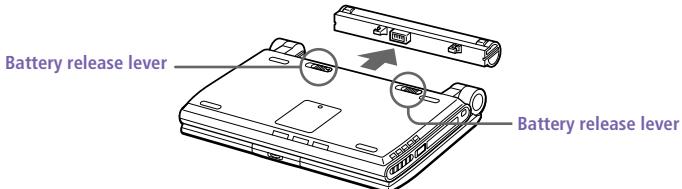
The battery pack supplied with your computer is a lithium ion battery and can be recharged at any time. Charging a partially discharged battery does not affect battery life.

The battery indicator light is on while you use the battery pack as a power source. When battery life is nearly depleted, the battery indicator starts flashing.

For some software applications and some peripheral devices, your computer may not enter system hibernation mode when the battery life is low. To avoid loss of data when using battery power, you should save your data frequently and manually activate a power management mode, such as system suspend or system hibernation.

To remove the battery pack

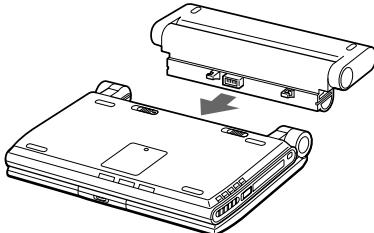
- 1 Turn off the computer.
- 2 Slide the release levers to the **UNLOCK** position and slide the battery away from the computer.



 You may lose data if you remove the battery pack while the computer is on and not connected to the AC adapter or if you remove the battery while the computer is in System Suspend mode.

To insert the optional high-capacity battery pack (PCGA-BP54)

Insert the battery pack with the VAIO logo side facing down. See the manual that came with the battery pack for more information.



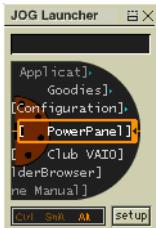
Conserving Battery Power

When using the notebook computer with a battery, the LCD display and the hard drive can be set to switch off automatically to conserve battery power (Power Management function). For details, refer to page 41.

Opening the PowerPanel

The PowerPanel software supplied with the notebook computer allows you to make power conservation settings to suit your usage requirements.

When you start the notebook, the PowerPanel icon appears in the taskbar at the bottom of the display screen (factory default setting). It is operated with the Jog Dial control.



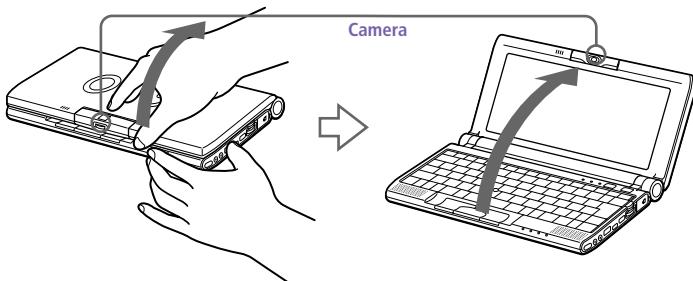
Displaying the PowerPanel Toolbar

To display the PowerPanel toolbar, right-click the taskbar and select Toolbars from the pop-up menu. Then, click PowerPanel and the PowerPanel toolbar appears in the taskbar. When you point to a button, a tool-tip appears showing the function of the button.

You can display the PowerPanel toolbar on the right of the screen by dragging it to the right.

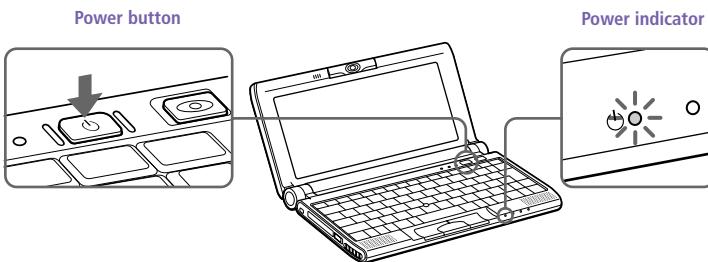
Starting Your VAIO C1 PictureBook Computer

- 1 Lift the cover while holding the bottom of the computer firmly. Do not grasp the camera lens when opening the cover as this may damage the unit.



 Turn the built-in camera towards you before closing the cover. Do not turn the built-in camera while the cover is closed.

- 2 Press the power button until the green power indicator light turns on.



 If you push the power button for more than four seconds, the computer turns off.

- 3 If necessary, adjust the brightness controls for the LCD display. To decrease the brightness, press Fn+F5 and then the down or left arrow key. To increase the brightness, press Fn+F5 and then the up or right arrow key.

Shutting Down Your VAIO C1 PictureBook Computer

! To avoid potential loss of data, follow these steps to shut down your computer.

Using the Windows Start Button

- 1 Click the Start button on the Windows 98 taskbar.
- 2 Click Shut Down at the bottom of the Start menu to display the Shut Down Windows dialog box.



- 3 Select Shut down.
- 4 Click OK.

Respond to any prompts warning you to save documents.

- 5 Wait for your computer to turn off automatically. The power indicator turns off.
- 6 Turn off any peripherals connected to your computer.
- 7 To close the cover, make sure the tabs on both sides of the display panel click into place in the grooves.

If you are unable to shut down your computer using the steps described above, press the Ctrl+Alt+Delete keys at the same time and click Shut Down. If you are unable to shut down the computer in this way, you can push the power button and hold it for four seconds. This operation may result in loss of any unsaved data.

During a period of inactivity, you can conserve battery life by using System Suspend mode. See "Using Power Saving Modes" on page 41.

Registering Your Computer

You can take advantage of Sony's commitment to quality customer support and receive the following benefits by registering your computer with Sony:

- ❑ **Extended Limited Warranty** – Protect your investment. Extend your Warranty nine months for a total of 12 months from the original date of purchase when you register your computer.
- ❑ **Express service** – Provides a fast and direct return of your VAIO Notebook to Sony for service of your computer.*

If you have not already registered, follow these steps to use your computer's online registration service. You may also sign up for Internet access with a Sony-preferred Internet Service Provider.



You must connect a phone line (not supplied) before using any online services, including the online registration service. See "Connecting a Phone Line" on page 44.

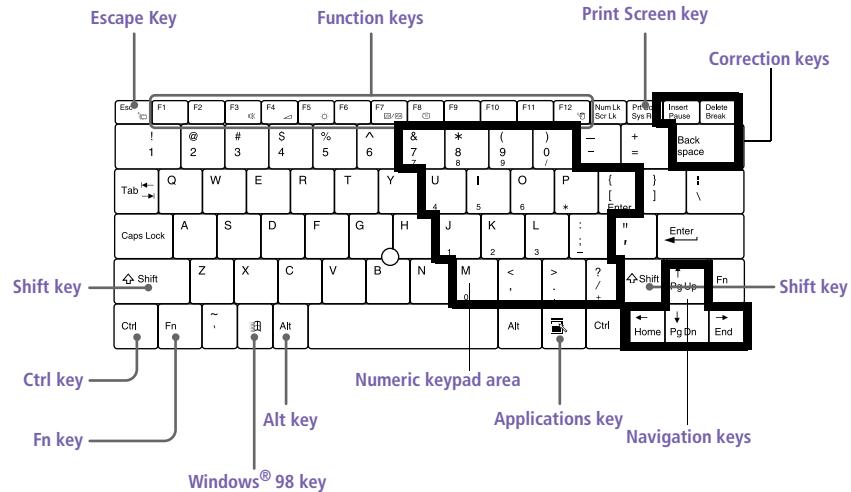
- 1 Click the Registration icon on the VAIO desktop.
- 2 Enter the information requested on the first online registration form. Press the Tab key to move from box to box.
- 3 Click the Next button to advance to the next form.
- 4 Complete the remaining forms by clicking the Next button each time you complete a form.

The computer automatically transfers your registration information using your built-in modem and a toll-free telephone number.

* Certain restrictions apply.

Using the Keyboard

Your keyboard is very similar to a typewriter's, but the keyboard has additional keys that perform specific computer-related tasks.



| Key | Description |
|---------------------|---|
| Numeric keypad area | Contains the keys found on a typical calculator. Use the numeric keypad area to type numbers or to perform mathematical calculations such as addition and subtraction. Numbers appear on the front beveled edge of the numeric keys. Note that you must press the Num Lock key to activate the numeric keypad. (When you do so, the Num Lock light will be on.) |
| Navigation keys | Several keys are devoted to moving the cursor on the screen (the four arrow keys which also function as the Home, End, Page Up, and Page Down keys). |
| Correction keys | The Insert, Backspace, and Delete keys enable you to make corrections in your documents. |
| Function keys | The twelve function keys along the top of the keyboard are used to perform designated tasks. For example, in many applications, F1 is the Help key. The task associated with each function key may vary from one application to the next. |

| Key | Description |
|---|---|
| Escape key | The Esc (Escape) key is used to cancel commands. |
| Print Screen key | The Print Screen key takes an electronic snapshot of the screen and places it in the Windows Clipboard. You can then paste the screen shot into a document and print it. |
| Operator keys | Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many applications, instead of choosing the Save command from a menu, you can hold down Ctrl and press S (referred to as Ctrl+S). The Shift key operates the same way as on a typewriter; it's used to produce capital letters or special symbols such as @ and \$. <hr/> |
| Windows® 98 key  | The key with the Windows® logo displays the Windows® 98 Start menu; it's the equivalent of clicking the Start button on the task bar. See "Combinations and Functions with the Windows 98 Key" on page 19. <hr/> |
| Fn key  | The Fn key is used in combination with other keys to issue commands. The Fn keys at the left and right sides both work the same. See "Combinations and Functions with the Fn Key" on page 21. <hr/> |
| Applications key  | The Applications key displays a shortcut menu of context-sensitive choices; pressing this key is the equivalent of clicking the right mouse button. |

Combinations and Functions with the Windows 98 Key

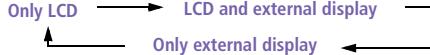
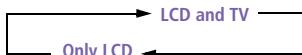
| Combination | Function |
|-----------------------|--|
| Windows + F1 | Displays Windows Help. |
| Windows + Tab | Switches the selected button on the taskbar. |
| Windows + E | Displays Windows Explorer. |
| Windows + F | Displays the Windows Find: All Files window to find a file or folder. This is the equivalent of selecting Find and then Files or Folders from the Start menu. |
| Windows + Ctrl + F | Displays the Windows Find: Computer window where you can locate other computers. This is the equivalent of selecting Find and then Computer from the Start menu. |
| Windows + M | Minimizes all displayed windows. |
| Shift + Windows + M | Returns all minimized windows to their previous size. |
| Windows + R | Displays the Run window. This is the equivalent of selecting Run from the Start menu. |
| Fn + Windows + Insert | Displays the Properties window. This is the equivalent of double-clicking the System icon in the Control Panel. |

Indicators

| Indicator | Function |
|-----------------|--|
| Power | Power on: lights green. System Idle mode: lights amber. System Suspend mode: flashes amber. |
| Battery | Indicates the status of the battery inserted in the computer. |
| Hard disk | Lights when data is read from or written to the hard drive. Do not enter System Suspend mode or turn off the computer when this indicator light is on. |
| Information | Turns on when the Timer is set. Turns off when the Timer is not set or the Timer setting is inactive (such as when the computer's power is off or in System Hibernation mode). Depending on the VAIO Action Setup Settings, the Information indicator lights up when you receive or retrieve e-mail. For details, see the VAIO Action Setup help files |

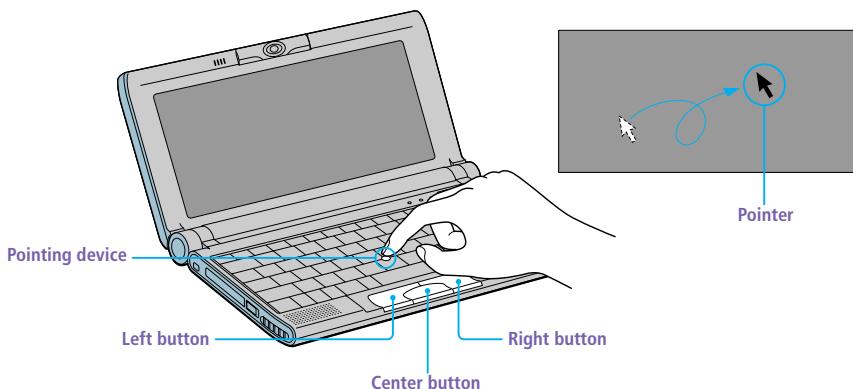
| Light | On | Off |
|-----------------|---|---|
| Num Lock | Turns on when the number keys area in the numeric keypad are active. | Turns off when the alphanumeric character keys in the keypad area are active. |
| Caps Lock | Turns on when the letters appear in uppercase as you type. The Shift key lowers the case of typed letters when Caps Lock is on. | Turns off when letters appear in lower case as you type (unless you hold down the Shift key). |
| Scroll Lock | Turns on when the screen scrolls differently. (depends on the application. No effect in many applications.) | Turns off when information moves across the display normally. |

Combinations and Functions with the Fn Key

| <i>Combinations/ Feature</i> | <i>Functions</i> | | |
|--|---|---|--|
| Fn+  (ESC) System Suspend | Puts the system into System Suspend mode, a power management state. To return the system to the active state, press any key or press the power switch on your computer. | | |
| Fn+  (F3) Speaker switch | Toggles the built-in speaker off and on. | | |
| Fn+  (F4) Speaker volume | Adjusts the built-in speaker volume. To increase volume, press Fn+F4, then  or  or  (F5) Brightness control | Adjusts the brightness of the LCD. To increase light intensity, press Fn+F5 and then  or  or  (F7) Switch to the external display | Toggles through the LCD, external display (connected to the  Monitor connector), and both LCD and external display. |
| |  | | |
| Fn+  /  (F8) Switch to the TV | Toggles through LCD display and dual LCD/TV. | | |
| |  | | |
| Fn+  (F12) System Hibernation | Provides for the lowest level of power consumption. When you execute this command, the state of the system and state of the peripheral devices are written to the hard disk and the system power is turned off. To return the system to the original state, use the power switch to turn on the power. | | |
| Fn+D Video standby | Turns off the LCD in order to save power. | | |
| Fn+B Bass Boost | Toggles the bass-boost function off and on. This feature is available only while using the headphone. | | |
| Fn+S System Idle | Puts the system into Idle mode, a power management state. To return to the active state, press any key. | | |

Using the Pointing Device

The pointing device on the keyboard allows you to point to, select, drag, and scroll objects on the screen.



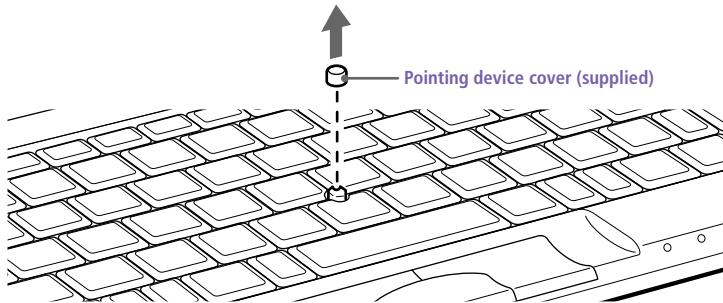
| Action | Description |
|--------------|---|
| Point | Press the pointing device in a direction to place the pointer on an item or object. |
| Click | Press the left button once. |
| Double-click | Press the left button twice. |
| Right-click | Press the right button once. In many applications, this action displays a shortcut menu of context-sensitive choices. |
| Drag | Press the pointing device in a direction to place the pointer on an item or object. While holding the left button, press the pointing device, then release it at the desired point. |
| Scroll | Press the pointing device while pressing the center button. |



The scroll function is available only with applications that support a scroll pointing device feature. Pushing the pointing device too hard may damage it.

To replace the pointing device cover

You can take off the pointing device cover and replace it with the additional cover supplied with your computer.



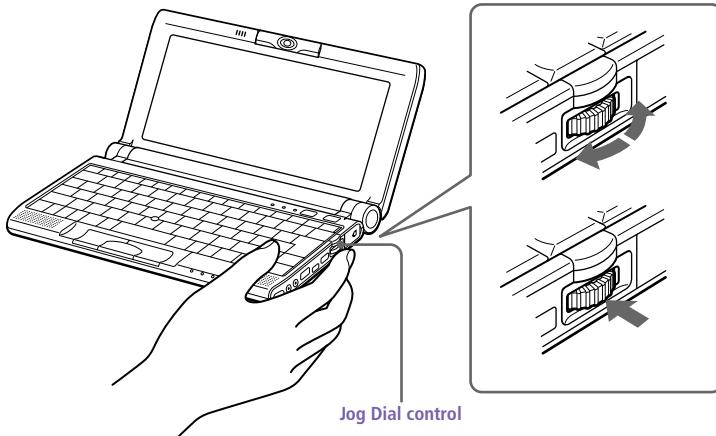
Make sure the cover is tightly secured to prevent damage to the screen when you close the computer.

VAIO Action Setup

VAIO Action Setup manages the settings for your computer's Jog Dial control and iLINK interface. An overview of each of these functions is provided in the next few pages. For more information on changing the settings using VAIO Action Setup, right-click the Jog Dial control icon,  or , in the task tray and click Help Topics.

Jog Dial™ Control

Your computer is equipped with a Jog Dial on the right side of the unit. The Jog Dial control enables you to open an application, folder, or document from a predefined list by rotating and pressing the Jog Dial control. In addition, when you press the Jog Dial control, you can turn on your computer automatically and start the selected application or document, and if the document you select is a script file, you can execute a complex task, such as connecting to the Internet and downloading your e-mail to your computer by simply pressing the Jog Dial control.



The Jog Dial control window always appears in the display. It is either in the launcher mode or in the guide mode.

Launcher mode

The Jog Dial control window is in launcher mode until a software application is launched or the Jog Dial control window becomes active. When an arrow is displayed next to an item in the Jog Dial control window, you can display a submenu of that item by selecting it and pressing the Jog Dial control button.



Guide mode

The Jog Dial control window is in the guide mode when software is in use and the software window is active. Depending on the software you are using, you can select items from the displayed list using the Jog Dial control. Some Sony software applications have two modes in List View, Simple Menu and Full Menu. You can switch the mode by pressing the shift key while turning the Jog Dial control.



Using the Jog Dial™ Control

This section explains how to use the Jog Dial control. For information on how to change the Jog Dial control's settings, right-click the Jog Dial control icon in the task tray and click Help Topics.

Launcher mode

To use the Jog Dial control, click the Jog Dial control window or the Jog Dial control icon in the task tray. Alternatively, you can press the Jog Dial control while pressing the Ctrl key on the keyboard to switch to the launcher mode.

- 1 Turn the Jog Dial control to select the item you want, then press the Jog Dial control. The window switches to the guide mode, and shows the Jog Dial's function.



- 2 Turn or press the Jog Dial control to use the desired function.
- 3 To select another item, switch to the launcher mode and repeat from step 1.

Guide mode

The Jog Dial control window displays the Jog Dial's function.

Software that supports the Jog Dial Control

If Sony software that supports the Jog Dial control is active, you can use the Jog Dial's functions that are allocated to that software. For more information on functions allocated to software, see the software applications online Help.

Software that does not support the Jog Dial Control

If the software you are using does not support the Jog Dial control, you can scroll the window or adjust the window size as described below:

| Action | Description |
|-------------------|---|
| Maximize Window* | Press the Jog Dial control button to maximize the size of the active window. Press again to return to normal window size. |
| Minimize Window* | Press the Jog Dial control button to minimize the size of the active window. Press again to return to normal window size. |
| Finish Window* | Press the Jog Dial control button to close the active application. |
| Scroll* | Press the Jog Dial control button to begin scrolling within the active window. |
| Jog Dial Launcher | Press the Jog Dial control button to return the Jog Dial control to Jog Launcher mode. |
| Menu Bar | Press the Jog Dial control button, then use the Jog Dial control to scroll through the active window's toolbar. |

* Some software does not support these functions.

Dialog box

When a window such as Screen properties is active, Dialog is displayed in the Jog Dial control window. You can select an item in the window by rotating the Jog Dial control. Also, pressing the Jog Dial control is equivalent to pressing Enter.



Internal Timer

You can use the internal timer to start an application at a specific time. The timer can start applications even when the power is off.

AutoAlert E-mail Notification System

VAIO Action Setup enables you to set up your computer to notify you with an Information LED when new mail arrives in your e-mail mailbox. The Information LED turns red to indicate that new e-mail has arrived. For AutoAlert E-mail Notification to work, you must use Microsoft® Outlook® Express as your default e-mail software, and you must have an Internet Service Provider with Dial-up capabilities set up.

As an alternative you can program your VAIO Action Setup to set the Information LED to turn on when VAIO Action Setup has successfully completed the task of dialing up and connecting to receive mail. In this case, the Information LED turns on to indicate that your e-mail account has been accessed successfully, regardless of whether or not you have mail; this works with Outlook Express.

i.LINK Interface

Your computer comes equipped with an i.LINK port. The port is a digital interface (IEEE-1394) for high-speed communication. By using your computer, a Sony Digital Handycam® Camcorder or other camera that supports the i.LINK interface, you can easily create and edit your own home videos. For more information on connecting an i.LINK device, see "Connecting an i.LINK device" on page 59 of this manual.

Using the built-in MOTION EYE camera

Your computer includes a built-in MOTION EYE camera. You can use the camera to shoot still images and record video clips.



Do not touch the camera lens.

Do not point the camera towards the sun.

You cannot detach the camera.

Smart Capture is unavailable while other software that uses the built-in camera is in use.
Close all software that uses the built-in camera before you use Smart Capture.

You cannot transfer still images or video clips from the built-in camera while transferring to connected i.LINK devices.

You should take an initial shot before taking a final shot to ensure sound and picture quality.

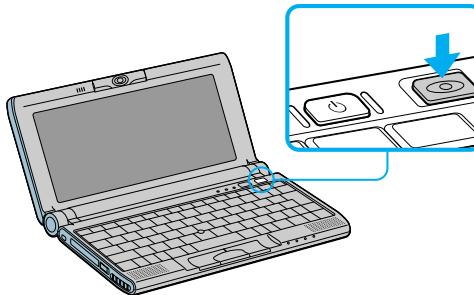
Your recording is not guaranteed.

If your recording fails due to conditions unfavorable to the camera, the contents of your recording cannot be guaranteed.

Clean the lens regularly. Picture quality is adversely affected when the lens is dirty.

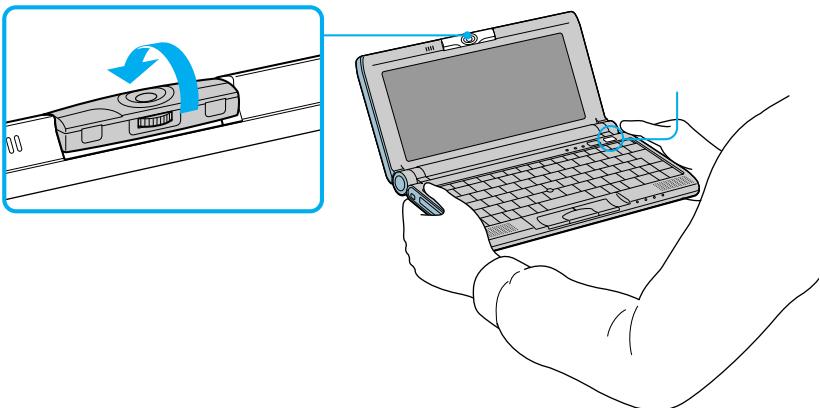
Capturing a still image

- 1 Press the CAPTURE button to start Smart Capture.

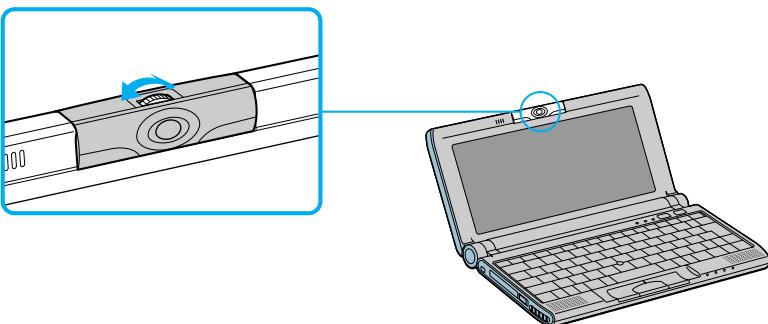


- 2 Select Still Viewer/Movie Player from the application list.
- 3 Choose Still by clicking the on-screen Capture Mode button. To switch to Motion, click the Capture Mode button again.

- 4 The Finder window appears. Turn the MOTION EYE camera lens towards the subject you want to photograph.



- 5 Adjust the focusing ring.



- 6 Half-press the CAPTURE button on the computer. The image remains still for a few seconds. To display another image, release the CAPTURE button and press again.
- 7 Fully press the CAPTURE button. The still viewer window opens and the captured still image appears in the still viewer window.
- 8 For more detailed information about the capture software, refer to the online Help for Smart Capture.

If you turn the lens inwards, Smart Capture goes into mirror mode. You can use the mirror mode to take a still image of yourself. A mirror-image appears in the finder window of the display while shooting; however, after capturing, a normal image appears.

You can capture the following still images sizes: 640 x 480, 320 x 240, 160 x 120, 80 x 60, and 40 x 30.

 To set the sound quality, you can adjust the sound quality for differing sound environments. click Start, select Settings, then click Control Panel. Double-click Multimedia, and click the Record icon of the Audio tab. Adjust the volume level with the microphone slider.

To create a panoramic image

You can create panoramic images by connecting still images captured with the MOTION EYE camera.

- 1 Capture the still images. Using the Panoramic-assist function of Smart Capture, capture still images to be used to create your panoramic image. For details, see Smart Capture online Help.
- 2 Start the PictureGear software. For details, see the Picture Gear online Help.

To set the image quality and mode of MOTION EYE camera

You can change the settings of image quality or mode of MOTION EYE camera.

- 1 Click the Start button, point to Settings, and then click Control Panel.
- 2 Double-click the MOTION EYE camera icon. The Camera Control Utility appears.

 You can also activate the Camera Control Utility using the Jog Dial control. Camera Control Utility is available even while using other software applications that use the MOTION EYE camera.

- 3 Click the Image Quality tab and drag the slider to the left or the right. The level settings increase as the slider is moved to the right and decrease as it is moved to the left.

| <i>Features</i> | <i>Description</i> |
|-----------------|---|
| Brightness | Adjust the brightness |
| Contrast | Adjust the contrast of the light part and the dark part |
| Color | Adjust the coloring |
| Hue | Adjust the hue of the color |
| Sharpness | Adjust the sharpness |

4 Click Mode tab and click the item you want to set.

| Features | Description |
|---------------|--|
| Field/Frame | Set according to the movement of subjects. <ul style="list-style-type: none"><input type="checkbox"/> Field: Suitable for moving subjects.<input type="checkbox"/> Frame (interpolation): The middle mode between the Field mode and Frame mode.<input type="checkbox"/> Frame: Suitable for still subjects. |
| White balance | Adjust the colors to be more natural. <ul style="list-style-type: none"><input type="checkbox"/> Auto: Adjust automatically to natural colors.<input type="checkbox"/> Indoor: Suitable for indoor capturing.<input type="checkbox"/> Outdoor: Suitable for outdoor capturing.<input type="checkbox"/> Hold: Suspend the proximate settings of the white balance, so that settings do not change automatically. |
| Shutter speed | Set the shutter speed: <ul style="list-style-type: none"><input type="checkbox"/> Auto: Adjust the shutter speed automatically.<input type="checkbox"/> 1/100 shutter: Set the shutter speed 1/100 seconds. This speed is suitable for capturing images under fluorescent light.<input type="checkbox"/> Hold: Suspend the proximate settings of the shutter speed, so that settings do not change automatically. |

 The appropriate mode will vary depending on the situation or subject. Switching between outdoor and indoor environments while setting the White Balance to Hold may cause colors to appear incorrectly. For color correctness, set White Balance to Auto and capture something white, and then wait approximately 10 seconds. The image should now display with the correct color.

5 Click OK.

 Click the Default button, and then click OK to return all settings to the default settings.

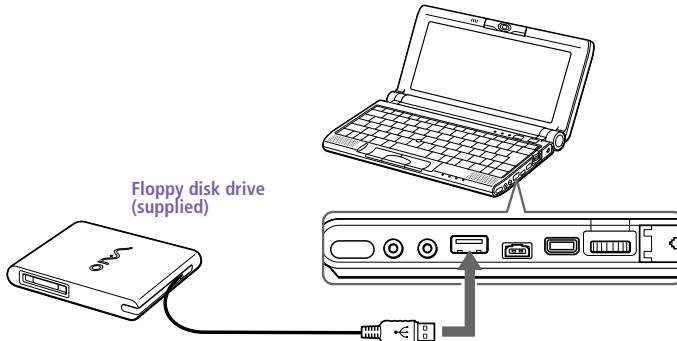
Using the Floppy Disk Drive

You can connect the floppy disk drive to the USB connector on your computer.

To connect the floppy disk drive

-  You do not need to shut down the computer before connecting or disconnecting the floppy disk drive.

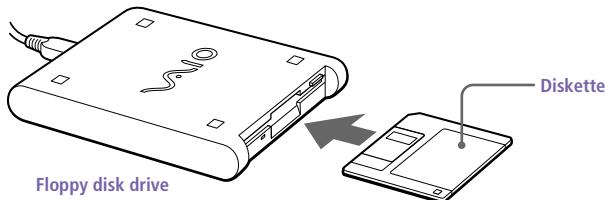
Plug the USB cable on the floppy disk drive into the  USB connector on the computer. When using the disk drive, the VAIO logo should face up.



-  Do not use the supplied floppy disk drive with other computers, as this may cause damage to the unit.

To insert a diskette

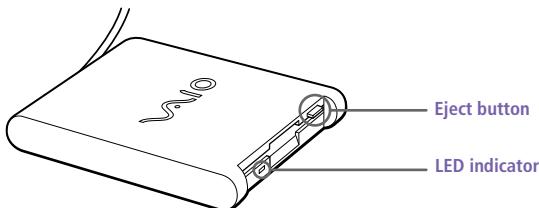
- 1 Hold the diskette with the label side facing up.
- 2 Gently push the diskette into the drive until it clicks into place.



To remove a diskette

When you finish using the diskette, wait until the LED indicator turns off and then press the Eject button to remove the diskette.

 Do not press the Eject button while the LED indicator is on, as this may damage the diskette.



If the diskette does not come out by pressing the Eject button, disconnect the floppy disk drive from the computer.

To remove the floppy disk drive

Wait until the LED indicator turns off, and then unplug the USB cable from the computer.

To carry the floppy disk drive

Fold the floppy disk cable into the compartment on the side of the floppy disk drive.



Using PC Cards

Your computer includes a PC card slot. PC cards allow you to connect portable external devices, such as a CD-ROM drive, or to connect to a network.

 The PC card slot can accommodate one Type I or Type II PC card. This slot is compatible with a 16-bit Card and CardBus. The ZV (Zoomed Video) port is not available.

Some PC cards may require that you disable idle devices when using the PC card. You can use Sony Notebook Setup to disable devices. See "Displaying the Sony Notebook Setup Screen" in *Customizing Your VAIO® C1 PictureBook Computer*.

Be sure to use the most recent software driver provided by the PC card manufacturer.

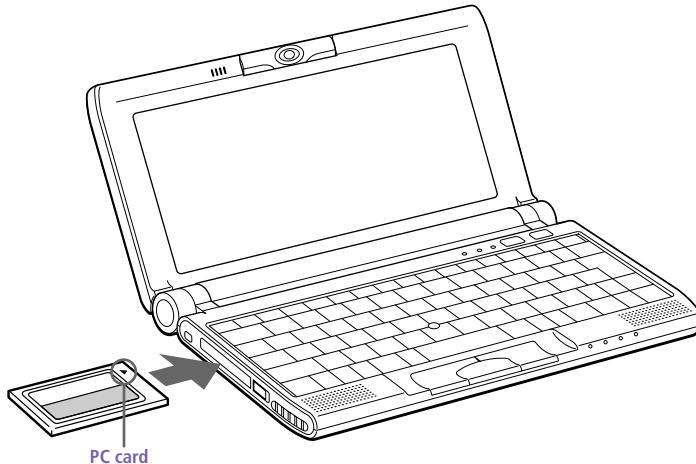
If an "!" mark appears on the Device Manager tab in the System Properties dialog, remove the software driver and then reinstall it.

You may not be able to use some PC cards or some of the functions of a PC card with this computer.

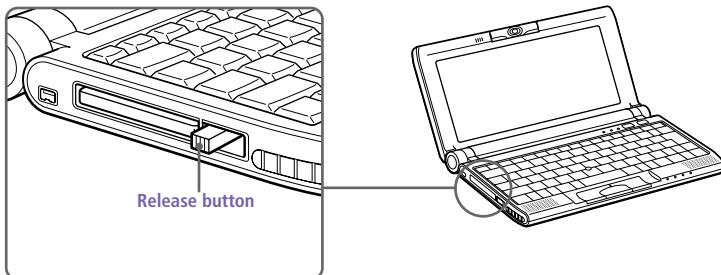
To insert a PC card

 You do not need to shut down the computer before inserting or removing a PC card.

- 1 Insert the PC card into the PC card slot with the front label facing up. Gently push the card into the slot until it is fixed into the connector; the release button comes out.



- 2 Pull the release button, then push it down toward the slot.



Do not force a card into the slot. It may damage the connector pins.

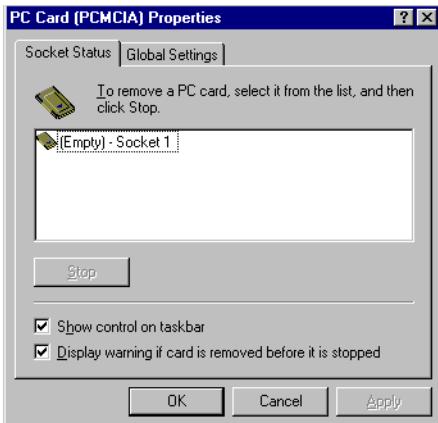
If you have difficulty inserting a card, check that you are inserting the card with the correct orientation.

See the manual that came with your PC card for more information on its use.

To remove a PC card

 Follow the procedure below when you remove the PC card while your computer is on. Failure to follow this procedure may result in a malfunction. When removing the card while your computer is off, skip steps 1 through 4.

- 1 Click the Start button, point to Settings, and then click Control Panel.
- 2 Double-click PC card.
- 3 Click the name of your PC card from the list that displays.



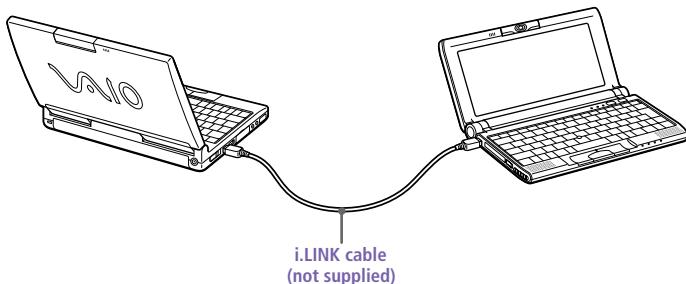
- 4 Click the Stop button, and then OK.
- 5 Push the release button.
- 6 Gently grasp the card and pull it out.

Using Smart Connect

With Smart Connect you can copy, edit, or delete files on another VAIO computer (equipped with Smart Connect) that is connected to your computer with an i.LINK® cable.

You can also print a document on a printer that is connected to another VAIO computer.

See the Smart Connect online help for more information.



 i.LINK cables that are compatible with your VAIO® C1 PictureBook Computer include cables with the following part numbers: VMC-IL4415 (a 1.5 meter cable with a 4-pin connector at each end), VMC-IL4408 (a 0.8 meter cable with a 4-pin connector at each end), VMC-IL4615 (a 1.5 meter cable with a 4-pin connector at one end and a 6-pin connector at the other).

Using Infrared Communication Devices

Your computer includes an infrared port, located on the right side of the computer. You can use this port to communicate with other infrared-equipped devices with compatible protocols, such as a digital still camera or other computers.

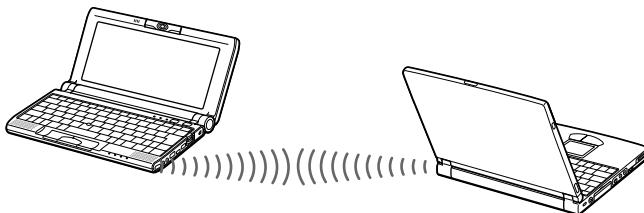
To use infrared communication with a digital still camera

Align the infrared ports on the computer and the digital camera so that they are in a direct line.



To use infrared communication with another computer

Align the infrared ports on the two computers so that they are in a direct line.



Infrared communication capability can be turned on and off. By default, it is not enabled when your system is shipped. To enable infrared use, click the Infrared icon in the Windows Control Panel, and select the Enable infrared communication checkbox on the Options tab.

You can disable infrared communication when you are not using it to conserve battery life.

Use the Infrared icon in the Windows Control Panel to enable and disable infrared communication. Do not use the icon in the taskbar.

When you transfer files directly from devices other than the internal hard disk drive (from a CD-ROM drive or hard disk drive on a network), set the System Suspend and System Hibernation timers to Off.

Check the Status tag of the Infrared Monitor in the Windows Control Panel to determine if the infrared device is detected.

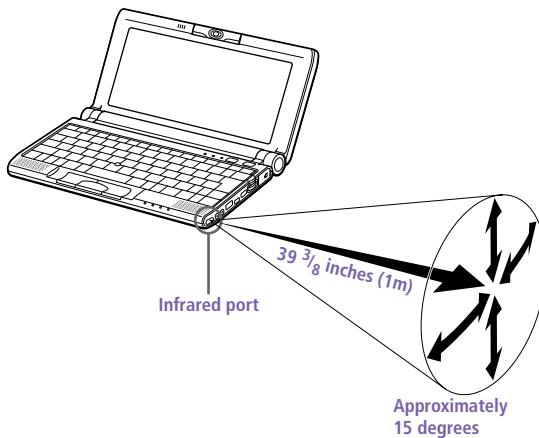
If the two devices are too far apart or too close together, data transfer may be interrupted or there may be noise in the transmission.

Do not cover the infrared ports with your hand or any other objects.

Avoid direct sunlight, fluorescent light, or flashing incandescent light near the infrared ports.

See the manual that came with your digital still camera or other infrared communication device for more information on installation and use.

The active area of infrared transmission extends about $39 \frac{3}{8}$ inches (1m) with a radius of approximately 15 degrees.



Using Power Saving Modes

When you use a battery as the source of power for your computer, you can take advantage of power management settings to conserve battery life. In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: System Suspend and System Hibernation. When using battery power, you should be aware that the computer automatically enters System Hibernation mode when the remaining battery charge drops below 7%, regardless of the power management setting you select.

 If your battery level falls to less than 10%, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully-charged battery.

Normal Mode

This is the normal state of your computer when it is in use. The green power indicator light is on in this mode. To save power, you can turn off a specific device such as the LCD or the hard disk.

 For details, see "Controlling Power Management" in *Customizing Your VAIO® C1 PictureBook™ Computer*.

System Suspend Mode

The computer saves the current state of the system in RAM and switches off power to the CPU. The amber power indicator light flashes in this mode.

To activate System Suspend mode

Press Fn+Esc, or you can press the power button and release it immediately. You can also use the PowerPanel utility to enter System Suspend mode.

To return to normal mode

Press any key.

System Hibernation Mode

The state of the system is saved on the hard drive and power is turned off. The power indicator light is off in this mode.

To activate System Hibernation mode

Press Fn+F12. You can also use the PowerPanel utility to enter System Hibernation mode.

To return to normal mode

Turn on the computer by pressing the power button. The computer returns to its previous state.

 When returning from System Hibernation mode, the system status stored on the hard disk is erased and the computer starts normally if you push the power button and hold it for more than four seconds.

- ❑ Time to return to normal mode:
System Suspend requires less time than System Hibernation.
- ❑ Power consumption:
System Suspend uses more power than System Hibernation.

Connecting Peripheral Devices

You can add functionality to your computer by connecting any of these peripherals:

- Phone line (page 44)
- Printer (page 46)
- External display (page 47)
- External USB mouse (page 55)
- CD-ROM drive (page 56)
- Digital video camera recorder (page 59)

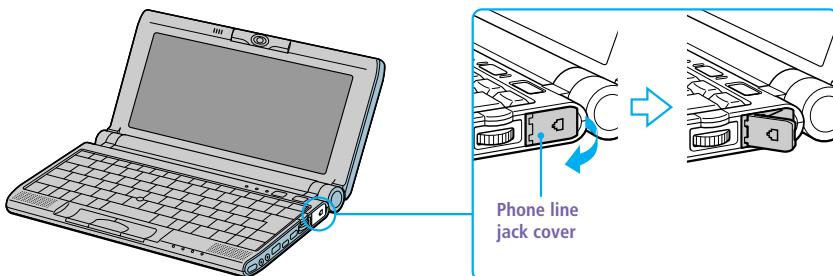
Connecting a Phone Line

You need to connect a phone line (not supplied) to take advantage of online services and the Internet.

 In order to register your VAIO C1 PictureBook Computer or register your software online, you must connect to a phone line. You must register your computer to receive the extended warranty.

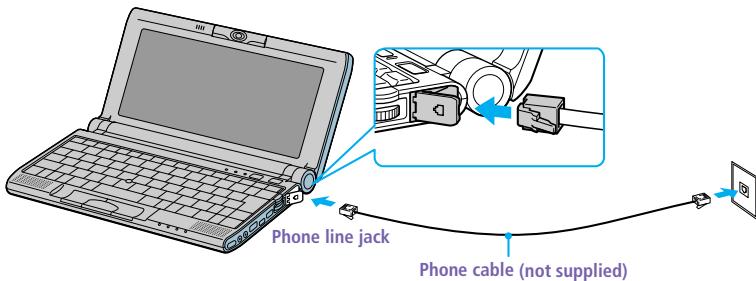
- 1 Open the phone line jack cover. The cover opens only to a 45-degree angle.

 Use care when opening the phone jack cover. Opening it beyond a 45-degree angle may result in damage to the unit.



- 2 Plug one end of the phone cable into the jack on the inside of the phone line jack cover. Make sure you insert the phone cable from the rear of the computer and that the modular jack clicks into place.

- 3 Plug the other end into the wall jack.



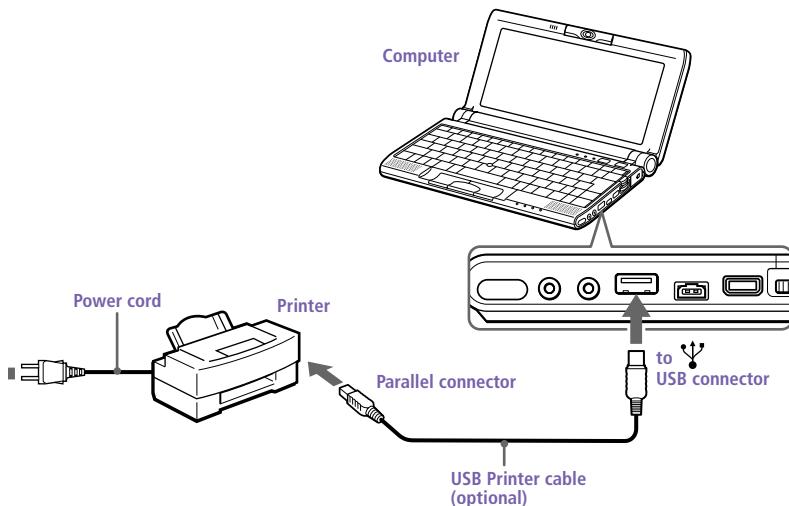
 Your computer does not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX). Some of these connections might result in excess electrical current and could cause a malfunction in the internal modem.

Connecting a Printer

You can connect a printer that is compatible with Windows 98 to your computer.

To connect a printer

Plug the optional USB printer cable into the USB connector on your computer and the parallel port on your printer.



See the manual that came with your printer for more information on installation and use.

To use a printer

To use a printer, first install the driver software that came with your printer.

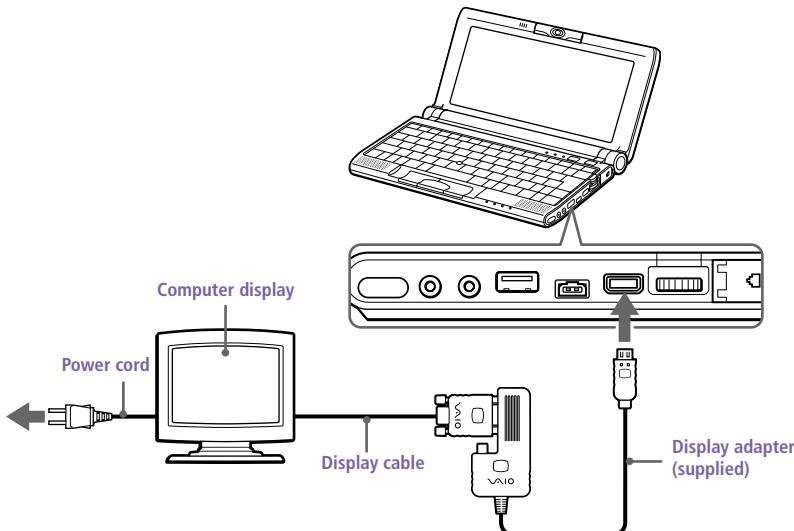
Connecting an External Display

You can connect an external display to your VAIO C1 PictureBook Computer. For example, you can use the computer with either of the following:

- ❑ Computer display (monitor) (page 47)
- ❑ Projector (page 48)
- ❑ TV (page 49)

To connect a computer display

- ❑ Use the □ symbol to locate the mini VGA/TV Out connector. Connect the supplied adapter to the mini VGA/TV Out connector, then plug the display cable into the adapter.
- ❑ If necessary, plug one end of the display power cord into the display, and the other end into an AC outlet.



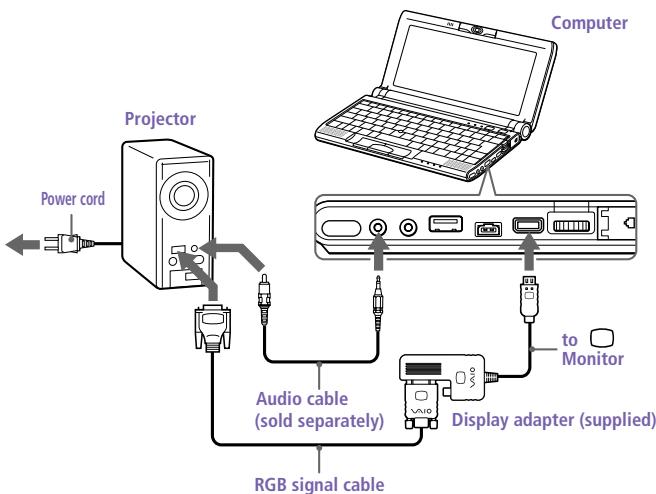
 See the manual that came with your computer display for more information on installation and use.

To connect a projector

You can use a projector as an external display, such as the Sony LCD Projector.

You can connect a projector using the supplied Display adapter.

- 1 Plug the VGA adapter into the computer's mini VGA/TV Out connector and the display signal cable to the "VGA Out" connector of the Display adapter.
- 2 Use the Ω symbol to locate the Earphone connector. Plug the speaker cable into this connector.



See the manual that came with your projector for more information on installation and use.

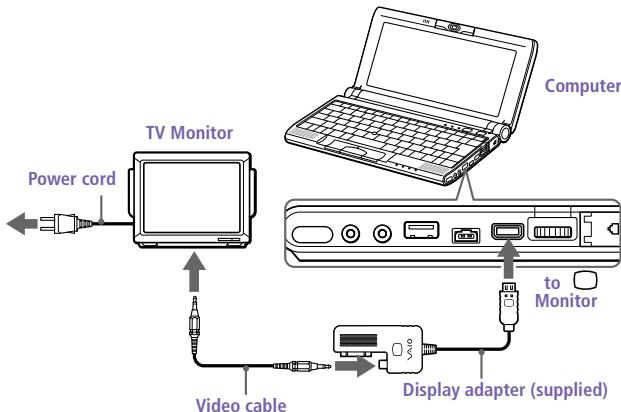
You may not be able to display the computer's LCD and the external display together, depending on the types of computer display and projector used.

Connect the AC adapter after you finish connecting all other peripherals. Turn on all the peripherals before you turn on the computer.

To connect a TV

Use the supplied display adapter to connect your TV monitor to the computer.

- 1 Plug the supplied display adapter into the computer's mini VGA/TV Out connector and the video cable to the "TV Out" connector of the display adapter.
- 2 Plug the other end of the video cable to the Video In connector of the TV.

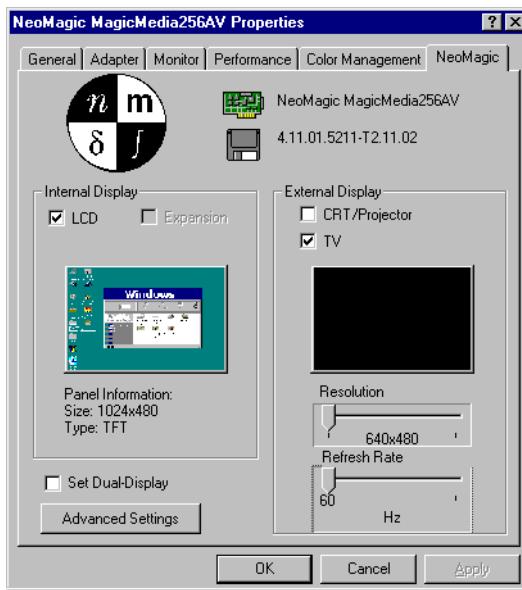


Your computer's TV output is compatible to NTSC only.

Selecting a Display

This notebook computer uses the NeoMagic video controller. You can select which display is used when the computer is connected to an external display.

- 1 Click the Start button, select Settings, and then click Control Panel. The Control Panel appears.
- 2 Click Display. Display Properties appears.
- 3 Click the Settings tab.
- 4 Click the Advanced button. NeoMagic MagicMedia 256AV XL+ Properties appears.
- 5 Click the NeoMagic tab. The NeoMagic settings appear.



6 Select the external display type:

| <i>Setting</i> | <i>Equipment displayed</i> |
|----------------|---|
| LCD panel | The internal LCD panel. |
| CRT/Projector | An external computer display connected to the Monitor connector on the notebook or the power up station, or an RGB connected projector. |
| TV | A video monitor or television connected to the VIDEO or S VIDEO connector on the power up station. |

You can turn off the notebook's LCD display by checking the External Display box in CRT/Projector and removing the check from the LCD box in Internal Display. With this setting, you can adjust the vertical frequency of the display with the refresh rate slider, but the resolution slider will not work.

To set the width of the desktop and the vertical frequency of the display, check Independent Display/Timing in Monitor as shown in step 2 on the next page. You can then change the settings by moving the refresh rate slider and the resolution slider.

When the external display type is set to TV:

- The internal LCD display cannot be turned off. The content of both the LCD and the TV displays will be the same.
- The resolution can be set with the resolution slider to either 640×480 or 800×600 dots.

7 Click OK.

Screen Properties reappears, and the selected display is enabled.

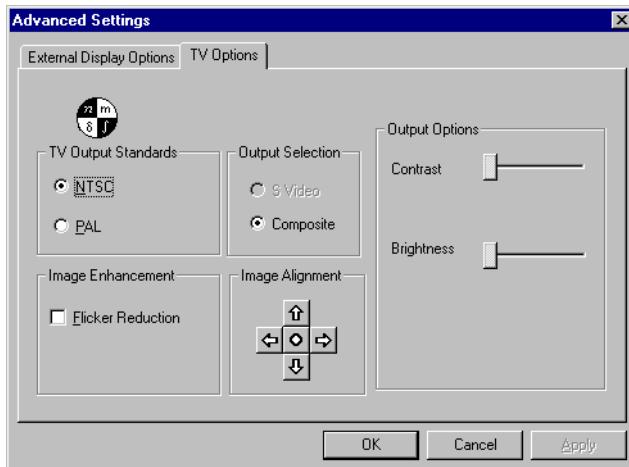
You can switch between displays by moving the Jog Dial control or pressing Fn and the function key. For details, see page 21.

- ! Important:** It is not possible to display screens simultaneously on both an external computer display connected to the Monitor connector and a TV connected to the VIDEO or S VIDEO connector.
- ! Depending on the type of computer projector being used, it may not be possible to display screens simultaneously on the internal LCD and an external projector.**
- ! Screens cannot be displayed on a TV connected to the VIDEO or S VIDEO connector while using true color (24 bit).**

CRT Display

If you selected CRT/Projector in step 6 of Selecting a Display on the previous page, you can set the resolution and other settings as appropriate for the type of external computer display (CRT, Projector) or projector you are using.

- Click Details in step 6 of Selecting a Display on the previous page. Advanced Settings appears.



- Select the display type.

External display/device:

| Setting | Function |
|-----------|---|
| CRT | Connection to an external computer display. |
| Projector | Connection to a projector. |

Set the refresh rate/resolution (for Independent display/Timing)
When Independent display/Timing is selected in Monitor settings, you can set separate values for the refresh rate and resolution of the internal and external displays.

- Set the resolution.
Select the resolution for the projector that you are going to use.
- Click OK.

! Important: It is not possible to select Independent display/Timing when true color (24 bit) is selected for the number of colors.

Television Display (When connected to the Display Adapter)

If you selected TV in step 6 of “Selecting a Display” on page 50, you can change settings such as the TV format and the display position.

- 1 Click Details in step 6 of “Selecting a Display” on page 50.
Advanced Settings appears.
- 2 Click the TV Options tab.

Standard TV output:

| <i>Setting</i> | <i>Function</i> |
|----------------|---|
| NTSC | Connection to a standard US/Japanese TV or video monitor. |
| PAL | Connection to PAL TV or video monitor. |

Output Selection:

| <i>Setting</i> | <i>Function</i> |
|----------------|--|
| S Video | Connection to a TV or video monitor that has an S connector. |
| Composite | Standard video output. |

Image Enhancement:

| <i>Setting</i> | <i>Function</i> |
|---------------------|--|
| Flicker suppression | This helps prevent problems with TV flicker. |

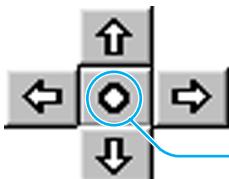
Output Option:

| <i>Setting</i> | <i>Function</i> |
|----------------|---------------------------|
| Contrast | Adjusts the TV contrast |
| Brightness | Adjusts the TV brightness |

- 3 Click OK.

To adjust the window position

Press the arrow to move the window in the direction of the arrow.



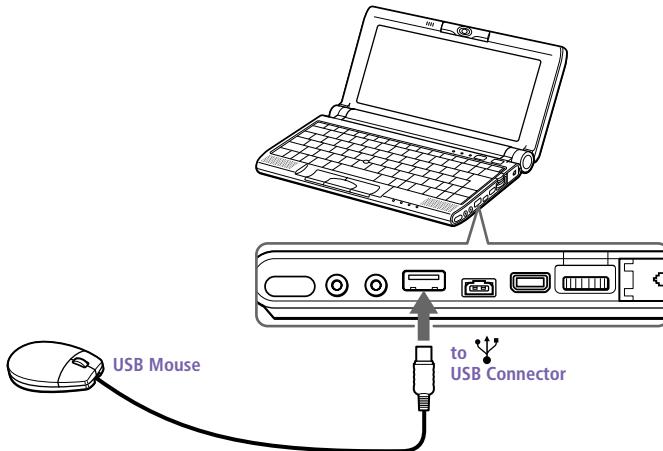
Press to position the window in the center of the screen.

Connecting an External USB Mouse

You can connect an external USB mouse PCGA-UMS1 (optional) to your computer.

To connect an external mouse

Plug the mouse cable into the USB connector. PCGA-UMS1 driver has already been installed.



A serial mouse or PS/2 mouse is not compatible with the VAIO® C1 PictureBook Computer.

See the manual that came with your mouse for more information on installation and use.

Connecting a CD Drive

You can use the optional PCGA-CD51 CD-ROM or PCGA-CDRW51 CD-RW drive with your notebook. If you use either optional drive when your computer is running on battery power, the battery life will be shorter. The drive draws power from the computer through a PC card.



Procedures for connecting the CD drive may vary, depending on the CD drive.

See the manual that came with your CD drive for more information on use.

To play an audio CD in the optional PCGA-CD5 CD-ROM drive with your notebook, your computer's settings must be set properly. You can check the settings as follows:

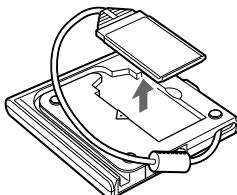
- 1) Click the Start button, select Settings, and click Control Panel.
- 2) Click the Multimedia icon.
- 3) Click the CD music tab and make sure the "Enable digital CD audio for this CD-ROM device" box is checked. When this box is checked, your notebook computer's settings are correct for playing an audio CD in the PCGA-CD5 CD-ROM drive.

To connect a CD-ROM drive

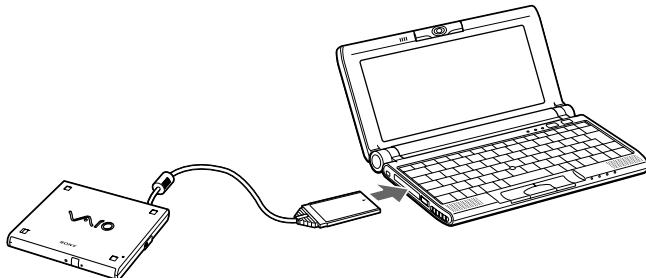


You can connect a PCGA-CD51 CD-ROM drive PCGA-CDRW51 CD-RW drive while the computer is on, unless you want to use the System and Application Recovery CDs. Turn off your computer before using the System and Application Recovery CDs.

- 1 Remove the PC card slot protector from the PC card slot. See "Using PC Cards" on page 35 for details.
- 2 Remove the PC card from the bottom side of the CD drive.



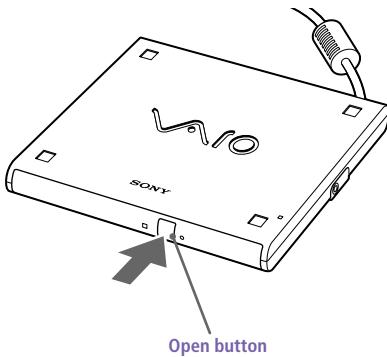
- 3 Insert the PC card into the PC card slot with the SONY logo facing up. See "Using PC Cards" on page 35 for details.



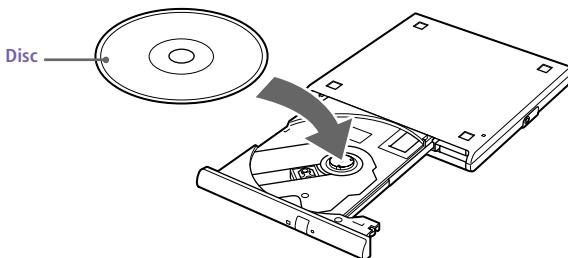
 A protective cover is attached to the lens of the CD-ROM drive at the factory. Before using the CD-ROM drive, remove the protective cover.

To insert a CD-ROM

- 1 Push the Open button in the direction of the arrow to open the CD-ROM drive lid.

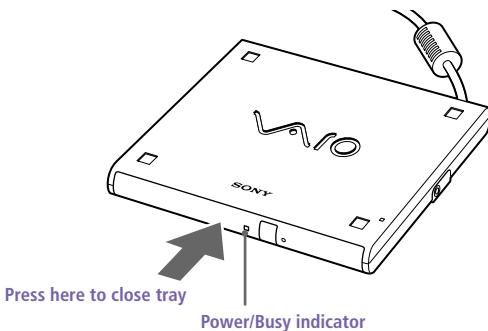


- 2 Place the CD-ROM in the tray with the label side facing up. Push the disc onto the hub until the disc clicks into place.



 Be sure to seat the CD-ROM firmly over the CD-ROM drive hub fingers. If you do not seat the disc firmly, you could damage your CD-ROM drive and you may not be able to open the CD-ROM drive lid.

- 3 Gently slide the tray back into place.

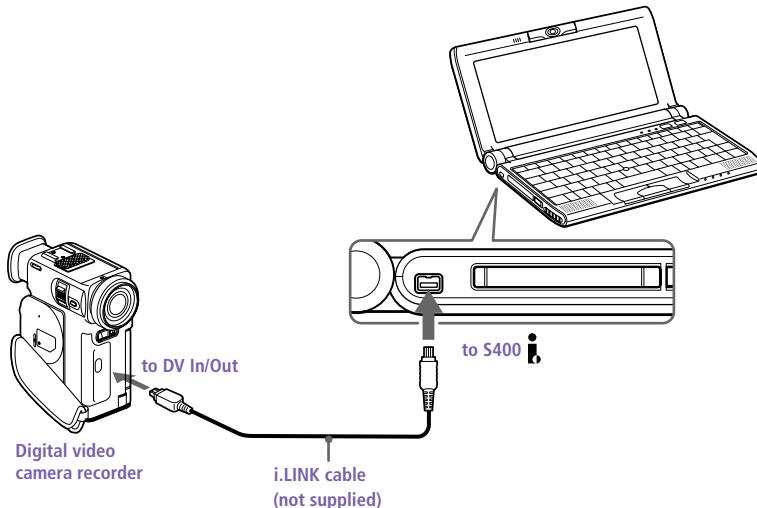


Connecting an i.LINK device

The VAIO C1 PictureBook Computer includes an i.LINK (IEEE-1394) connector, which you can use to connect to an i.LINK-enabled digital video camera recorder.

To connect a digital video camera recorder

- ❑ Plug one end of an i.LINK cable into the S400  connector on the left side of the computer and the other end into the DV In/Out connector on the digital video camera recorder.



 The Sony digital video camera recorder is pictured; your digital video camera recorder may need to be connected differently.

On Sony digital video cameras, connectors labeled "DV In/Out" or "i.LINK" are compatible.

See the manual that came with your digital video camera recorder for more information on installation and use.

The i.LINK connector does not supply power to external devices. If the external device requires power from the i.LINK connector, you cannot use the device with your computer.

The C1 PictureBook Computer supports transfer rates up to 400 Mbps; however, the actual transfer rate is the lowest transfer rate of the external device.

The i.LINK features available may vary depending on the software applications you use. See the documentation that came with your software for more information.

Connecting External Speakers

You can enhance the sound quality of your computer by connecting external speakers.

To connect external speakers

- ❑ Use the  symbol to locate the Headphone connector. Plug the speaker cable into this connector.
-  Make sure your speakers are designed for computer use.
Turn down the volume of the speakers before you turn them on.
Do not place diskettes on the speakers; the speaker's magnetic field may damage the data on the diskettes.
-  See the manual supplied with your speakers for more information on installation and use.

Connecting an External Microphone

You can enhance the quality of sound input by using an external microphone.

-  Make sure your microphone is designed for computer use.

To connect an external microphone

Use the  to locate the Microphone connector. Plug the microphone cable into this connector.

-  See the manual supplied with your microphone for more information on installation and use.

Getting Help

Sony provides several support options for your Sony computer. When you have questions about your computer and the preinstalled software, check these sources for answers, in the following sequence:

-
- | | | |
|---|---|--|
| 1 | <i>Read Me First</i> | Contains Frequently Asked Questions, the most up-to-date information on using your computer, and software support information. |
| 2 | <i>VAIO® C1 PictureBook™ Computer User Guide</i> | The User Guide (this manual) contains information on how to get the most from your computer, find help, and solve common problems. It also contains product specifications. |
| 3 | <i>Customizing Your VAIO® C1 PictureBook™ Computer</i> | The electronic document contains additional information on customizing your computer. You can access this guide from the Windows Start menu by selecting Programs/VAIO/Documentation. |
| 4 | Manuals and online help files that may accompany your preinstalled software | Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications. |
| 5 | Knowledge Database | Provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access the Sony Knowledge Database at: http://www.sony.com/pcsupport |
-

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- | | | |
|---|--------------------------------------|--|
| 6 | <i>Sony Fax-on-Demand</i> | This service provides you with answers to commonly asked questions. You can use this automated service to request a list of available topics and then select the topics that you want to receive. To contact the Sony fax-on-demand service, call 1-888-4SONYPC (1-888-476-6972). (Requires a fax machine or your fax software.) |
| 7 | <i>Calling Sony Customer Support</i> | You can call and speak with a Sony Customer Support Representative without using your computer by calling 1-888-4SONYPC (1-888-476-6972). Software support is available free of charge for 90 days after the original date of purchase. |
-

Troubleshooting

This section describes how to solve common problems you may encounter when using your computer. Many problems have simple solutions, so try these suggestions before you call Sony Customer Support.

-  When you reconnect devices, be sure to turn off the computer as described in "Shutting Down Your VAIO C1 PictureBook Computer" on page 15. Turning off the computer using other methods may result in data loss.

My computer won't start

- ❑ Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer indicates that the power is on.
- ❑ Check that the battery is inserted properly and that it is charged.
- ❑ Make sure there is no diskette in the floppy disk drive.
- ❑ Confirm that the AC adapter and all cables are connected firmly, as described in "Connecting Peripheral Devices" on page 43.
- ❑ If you plugged the computer into a power strip or UPS, make sure the power strip or UPS is turned on and working.
- ❑ If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness control is adjusted correctly. See the manual that came with your display for details.
- ❑ Moisture condensation may have occurred. Do not use the computer for at least one hour and then turn on the computer.

When I turn on my computer, the message "Operating system not found" appears and Windows does not start

- ❑ Check the floppy disk drive to see if a non-bootable diskette is in the drive.
- ❑ If a non-bootable diskette is in the drive, turn off the computer, remove the diskette, and then turn on the computer again. Confirm that Windows starts properly. If Windows still does not start, follow the procedure below to initialize the BIOS.
- ❑ If the floppy disk drive is empty or contains a bootable diskette, use the following procedure to initialize the BIOS:

- 1 Turn off the computer.
- 2 Remove the floppy disk drive, PC card, and any other peripheral devices from the computer.
- 3 Turn the computer on again.
- 4 Press the F2 key when the Sony logo appears. The BIOS setup menu screen appears.
- 5 Press the arrow keys to select the Exit menu.
- 6 Press the arrow keys to select Get Default Values and then press the Enter key. The message “Load default configuration now?” appears.
- 7 Check that Yes is selected, and then press the Enter key.
- 8 Press the arrow keys to select Exit (Save Changes) and then press the Enter key. The message “Save configuration changes and exit now?” appears.
- 9 Check that Yes is selected, and then press the Enter key. The computer restarts.

When I turn on my computer, the message “No system disk or disk error. Replace and press any key when ready” appears and the computer does not start.

Remove the diskette from the floppy disk drive by pressing the Eject button and then press any key.

My LCD does not display anything

- ❑ Check that the computer is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the computer is on.
- ❑ Check that the battery pack is inserted properly and that it is charged.
- ❑ The computer may be in LCD (Video) Standby mode. Press any key to activate the display.
- ❑ The video output may be directed to an external display. Press Fn+F7 until video output appears on the LCD.

The screen image on my external display is not centered or sized properly

Use the controls on your external display to adjust the image. See the manual supplied with your display for more information.

The video image on my screen is too dark

If an external display is connected to the Monitor connector, disconnect the display.

The pointer moves across the screen on its own

This is called a “drift” and is not a malfunction. The pointer stabilizes if you do not touch the pointing device for a few seconds.

When I press the pointing device without pressing the left button, it clicks

Check that you have not selected the press-select function. See “Changing the Pointing Device settings” in the online document *Customizing Your VAIO® C1 PictureBook™ Computer*.

My mouse doesn't work

If you are using an external mouse, check that the mouse is plugged into the USB connector. See “Connecting an External USB Mouse” on page 55 for details.

My computer “locks up”

- ❑ Try restarting the computer. On the Windows taskbar, click the Start button, click Shut Down, and then click Restart the computer.
- ❑ If you cannot restart as described in the preceding step, you can restart the computer by pressing Ctrl+Alt+Delete.
- ❑ If the previous step does not work, slide the power switch toward the front and hold it for four seconds. This turns off the power.
- ❑ If your computer locks up while playing a CD-ROM, stop the CD-ROM, and restart the computer by pressing Ctrl+Alt+Delete.



Pressing Ctrl+Alt+Delete or turning off the computer with the power switch may result in data loss in files that are currently open.

My software program “locks up” or crashes

Contact the software publisher or designated provider for technical support.

Movements of the displayed images are awkward (not smooth)

In PowerPanel, right-click CPU Speed and select OS Controlled. See “Controlling Power Management” in the online document *Customizing Your VAIO® C1 PictureBook™ Computer* for details.

I cannot play a CD-ROM

- ❑ Make sure the label of the CD-ROM is facing up.
- ❑ If the CD-ROM requires software, make sure the software is installed according to the program's instructions.
- ❑ Moisture condensation may have occurred. Disconnect the CD-ROM drive and disconnect the power to the drive for at least one hour.
- ❑ Make sure the CD-ROM drive is properly connected. See "To connect a CD-ROM drive" on page 56.
- ❑ Clean the CD-ROM.
- ❑ Check the speaker volume.

When I press Fn+F3, nothing happens

Use the following procedure to enable sound:

- 1 Click Start, select Settings, and click Control Panel.
- 2 Click the System icon.
- 3 Click the Device Manager tab.
- 4 Click Sound, video and game controllers.
- 5 Double-click Yamaha DS-XG PCI Audio CODEC (WDM).
- 6 Uncheck the "Disable in this hardware profile" box.
- 7 Click OK. The sound is now enabled.

My microphone doesn't work

If you are using an external microphone, check that the microphone is plugged into the Microphone connector. For details, see "Connecting an External Microphone" on page 61.

When I click an application icon a message appears, such as "You must insert the application CD into your CD-ROM drive," and the software does not start

- ❑ Some titles require specific files that are located on the application's CD-ROM. Insert the disc and try starting the program again.
- ❑ Make sure you place the disc in the tray with the label side facing up.

My floppy disk drive cannot write to a diskette

- ❑ The diskette is write-protected. Disable the write-protect feature or use a diskette that is not write-protected.
- ❑ Check that the diskette is properly inserted into the floppy disk drive.

My speaker has no sound

- ❑ The built-in speaker is turned off. Press Fn+F3 to turn on the speaker.
- ❑ The speaker volume is turned to the minimum. Press Fn+F4, and then press ↑ or → to increase the volume.
- ❑ If your computer is powered by the battery, check that the battery is connected properly and that it is charged.
- ❑ If you are using an application that has its own volume control, check that the volume is turned up.
- ❑ Check the volume controls in Windows 98.
- ❑ If you have connected a headphone or an audio cable to the Headphone connector, disconnect the cable.

My modem does not work

- ❑ Check that the phone line is plugged into the line jack. See "Connecting a Phone Line" on page 44 for details.
- ❑ Check that the phone line is working. You can check the line by plugging in an ordinary phone and listening for a dial tone.
- ❑ Check that the phone number the program is dialing is correct.
- ❑ Check that the software you are using is compatible with the computer modem. (All preinstalled programs are compatible.) Call the software publisher.

My modem connection is slow

The computer's modem uses K56flex™ technology/V.90. Many factors influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider, check the following:

- ❑ Have your phone company check that your phone line is free from any line noise.
- ❑ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- ❑ If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.
- ❑ If you have a second phone line available, try connecting the modem to that line.

I cannot use DV devices and messages appear on the screen

- ❑ Check that the DV device is turned on and that the cables are properly connected.
- ❑ If you are using multiple i.LINK devices, the combination of the connected devices may cause unstable operation. In this case, turn off the power to all connected devices and disconnect unused devices. Check the connection, then turn on the power again.

My computer does not shut down

It is best to shut down your computer using the Shut Down command on the Windows 98 Start menu. Using other methods, including those listed here, may result in loss of unsaved data. If the Shut Down command does not work properly, follow these steps:

- ❑ Restart the computer by pressing Ctrl+Alt+Delete. If this does not work, slide the power switch forward and hold it for four seconds.
- ❑ Unplug the computer from the AC adapter and remove the battery pack from your computer.

My PC card is not working

- ❑ Make sure the PC card is compatible with Windows 98.
- ❑ Use the Sony Notebook Setup utility to disable devices you are not currently using.

The game images or video images are not clear

Right-click the application bar of the PowerPanel software, right-click CPU Speed, and select OS Controlled. See the online help of the PowerPanel help file for details.

There is a vertical line when shooting a bright subject with a dark background using the camera

This is a phenomenon called "smear." This is not a malfunction.

The image in the viewfinder of "Smart Capture" is grainy

- ❑ If you are shooting an image of minimum size, such as 40 x 30, the image may appear grainy.
- ❑ If you are shooting a subject that is moving rapidly, there may be a gap. This is not a malfunction.

The images imported with the MOTION EYE camera are not clear

- ❑ Shooting under fluorescent light may result in reflections.
- ❑ Red or green interference may occur if the imported images include dark parts.
- ❑ Check that the lens of the MOTION EYE camera is clean.
- ❑ Use the focus ring for focus adjustment.

I cannot record using Smart Capture, Smart Write, or Smart Label

- 1 Double-click  in the task tray.
- 2 Point to Display Select and select Recording.
- 3 Remove the check from the Mute check box in Microphone if the box is selected.

Smart Write and Smart Label do not start

Reinstall the software using the Application Recovery CD.

About the MOTION EYE Camera

There is a vertical line when shooting a bright subject with a dark background using MOTION EYE camera. This is a phenomenon called "smear," resulting from the inherent limits of this technology. This is not a malfunction.

The image in the view finder of "Smart Capture" is rough

If you are shooting a subject in rapid movement, there may be a gap. However, this is not a malfunction.

There are picture gaps and sound gaps when importing video images

Gaps may occur based on the effect settings in the Smart Capture software. See the on-line help of the Smart Capture software for details.

The MOTION EYE camera does not show any images

- ❑ Check to see if you are using any other applications which use the MOTION EYE camera. If any of these applications are running, close them.
- ❑ Check the screen resolution and the color palette settings. These settings use video memory. Selecting lower settings releases video memory.
- ❑ Open the Camera Control utility by selecting Start, Control Panel, and then clicking MOTION EYE camera. In the window that displays, select the Default button.
- ❑ If the MOTION EYE camera still does not show any images, restart your computer.

The message "Failed to record to DV deck" appears

If this message appears while you are recording images to a digital video device using DVgate Motion, close all open applications and restart your computer. Frequent recordings of images to a digital video device while using DVgate Motion sometimes causes this to occur.

Power Management

The operating system may become unstable if a lower power state such as system hibernation is initiated and then changed before the operating system completely enters the lower power state. To restore the computer to its normal operating stability, close all open applications, and restart the computer. If the computer does not restart, press the power button and hold it there for four seconds or more to completely shut down the computer.

Using the System and Application Recovery CDs

The following sections describe how to use the System Recovery and Application Recovery utilities. You need to connect the optional PCGA-CD51 CD-ROM drive to use the System and Application Recovery CDs.

Using the System Recovery CD(s)

You can reinstall software titles that shipped with your computer if they are corrupted or accidentally erased. You may not need to recover the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or device drivers. See “Using the Application Recovery CD(s)” on page 74.

The System Recovery CD contains a backup copy of all the software originally installed on your hard disk drive. **It can be used only to recover the hard disk of the computer you purchased.**

The System Recovery utility gives you three options:

- Full Restore without Format** restores all the software titles that originally came with your computer without formatting the hard disk.
- Full Restore with Format** formats the hard disk drive and then restores all the original software.
- Operating System Only** restores the Windows 98 operating system, the computer utility programs, and the device drivers that shipped with your computer.

! If you choose the Full Restore with Format or Operating System Only option, your hard disk will be formatted, which removes all the information on the hard disk drive. You will lose any software you have installed and any other files you have created since you started to use your computer. This means you will have to reinstall any applications that were not included with the computer when you purchased it. If you choose the Full Restore without Format option, you may need to reinstall applications that were not included with the computer when you purchased it. If you have any questions on using the System Recovery CD, contact Sony Customer Support.

To use the System Recovery CD

 The optional PCGA-CD51 CD-ROM drive must be connected to the computer to use the System Recovery CD.

- 1** Insert the Sony System Recovery CD in the CD-ROM drive.
- 2** Shut down your computer as described in “Shutting Down Your VAIO C1 PictureBook Computer” on page 15.
- 3** Wait four seconds and turn on your computer.
- 4** Click OK to signify you have read and accept the Microsoft End-User License Agreement.
- 5** When the System Recovery menu appears, follow the on-screen instructions to complete the recovery process.

 Your system may include one or two System Recovery CDs. If you have two System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the second CD once the information from the first CD has been installed.

The recovery process takes between 30 to 60 minutes to complete.

If your computer does not start from the Recovery CD

- 1** Slide the power switch forward and hold it for more than four seconds to turn off the computer.
- 2** Turn on the computer and press the F2 key when the Sony logo appears. The BIOS setup menu screen appears.
- 3** Press the arrow keys to select the Exit menu.
- 4** Press the arrow keys to select Get Default Values and then press the Enter key. The message “Load default configuration now?” appears.
- 5** Check that Yes is selected, and then press the Enter key.
- 6** Press the arrow keys to select Exit (Save Changes) and then press the Enter key. The message “Save configuration changes and exit now?” appears.
- 7** Check that Yes is selected, and then press the Enter key. The computer restarts from the Recovery CD.

Using the Application Recovery CD(s)

The Application Recovery CD(s) allow you to reinstall individual applications and device drivers if they are corrupted or accidentally erased. Reinstalling an individual device driver or software title may correct a problem you are experiencing with your computer, and you may not need to recover the entire contents of your hard drive. If you do need to reinstall all the software titles that shipped with your computer, use the System Recovery CD(s). See “Using the System Recovery CD(s)” on page 72.

 You must be in Windows to run the Application Recovery CDs. The application will not run from DOS. If you have any questions on using the Application Recovery CDs, contact Sony Customer Support.

Some applications on the Application Recovery CDs must be decompressed before the installation process begins. Your screen does not change while the files are decompressed. The time to decompress an application varies and may be as long as 30 minutes.

To use the Application Recovery CD(s)

- 1 Turn on your computer. If your computer is already on, close all applications.
- 2 When the Windows desktop appears, insert the first Sony Application Recovery CD in the CD-ROM drive. The Application Recovery utility loads automatically.
- 3 When the Application Recovery menu appears, follow the on-screen instructions to complete the recovery process.

 You may be prompted to insert the second CD, depending on the application you want to restore.

Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

Hard Drive Partition

In order to improve the performance of your computer's DVgate™ Motion software, the hard disk drive on your computer has been formatted with two partitions. The C drive partition is approximately 8 GB, and the D drive partition is 4 GB. DVgate Motion saves files to the D partition. This prevents large video captures from consuming the available space on your C partition. To maintain optimum performance of DVgate Motion, you should defragment your D partition regularly. See the DVgate Motion online help for more information.

Specifications

| | |
|--|--|
| <i>Model</i> | PCG-C1XS |
| <i>Processor</i> | 400 MHz* Mobile Intel® Pentium® II Processor |
| <i>Hard Disk Drive</i> | 12 GB† |
| <i>Integrated Camera</i> | 410,000 pixels (effective 380,000 pixels) |
| <i>Image Device</i> | 1/6 inch 410,000 pixel CCD |
| <i>Lens</i> | 2 elements in 2 groups f = 2.8 mm, F = 2.8 |
| <i>White Balance</i> | Auto/Indoor/Outdoor/Hold |
| <i>Shutter Speed</i> | Auto/ 1/100 /Hold |
| <i>Video Capture Format/Size</i> | YUY2/RGB 24 bit 40 x 30, 80 x 60, 160 x 120, Motion JPEG 320 x 240, 640 x 480 |
| <i>Display Frames</i> | 30 frames/second maximum (overlay) |
| <i>Capture Frames</i> | 30 frames/second maximum (320x240 motion JPEG) 15 frames/second maximum (640x480 motion JPEG) |
| <i>Standard RAM</i> | 64 MB SDRAM, expandable to 128 MB |
| <i>LCD Screen</i> | 8.9" XWIDE™ Active Matrix XGA TFT (1024 x 480) |
| <i>L2 Cache Memory</i> | 128 KB |
| <i>MPEG</i> | MPEG1 Digital Video supports full-screen playback |
| <i>Graphics</i> | 128-bit accelerator with 2.5 MB Video RAM |
| <i>Sound Capabilities</i> | 16-bit CD-quality stereo sound |
| <i>Diskette Drive</i> | External 3.5" 1.44 MB (USB) |
| <i>Modem</i> | K56flex and V.90 compatible data/fax modem‡ |
| <i>Infrared</i> | Supports 4 Mbps, 1.1 Mbps, and 115 kbps IrDA standard |
| <i>Expansion Capabilities</i> | One PCMCIA type II card and card bus support |
| <i>Built-in Capabilities</i> | Mono microphone Stereo Speaker MOTION EYE camera Pointing device Jog Dial control |
| <i>Special Buttons</i> | Jog Dial control and capture |
| <i>Telecommunications Capabilities</i> | Fax send/receive |

| | |
|--------------------------------|--|
| <i>Model</i> | PCG-C1XS |
| <i>Connection Capabilities</i> | Phone line (RJ-11) USB port Stereo headphone (MEGA BASS support) Microphone in VGA monitor i.LINK |
| <i>Supplied Accessories</i> | USB Floppy disk drive Rechargeable battery AC adapter Display adapter Pointing device spare caps |
| <i>Service</i> | 90-day limited express service ^{††} Extendible to one year from original date of purchase upon registration |
| <i>Limited Warranty</i> | 90-day parts/labor standard ^{††} Extendible to one year from original date of purchase upon registration |
| <i>Power Requirements</i> | 34 watts maximum (16V DC/AC100-240V) |
| <i>Power Management</i> | Energy Star Compliant Advanced power management (APM) version 1.2 |
| <i>Battery</i> | Lithium-ion 11.1 V |
| <i>Dimensions</i> | 9.76" (w) x 1.06" (h) x 6.02" (d) (248 mm x 27 mm x 153 mm) |
| <i>Weight</i> | 2.2 lbs. (1.0 kg) (with supplied battery) |
| <i>Operating Temperature</i> | 41°F to 95°F (+5°C to 35°C) (Temperature gradient less than 18°F/10°C/hour) |
| <i>Operating Humidity</i> | 20% to 80% (not condensed) when that humidity is less than 65% at 95°F (35°C) (hygrometer reading of less than 84°F (29°C)) |
| <i>Storage Temperature</i> | -4°F to 140°F (-20°C to 60°C) (temperature gradient less than 18°F(10°C)/hour) |
| <i>Storage Humidity</i> | 10% to 90% (not condensed) when that humidity is less than 20% at 140°F (60°C) (hygrometer reading of less than 95°F (35°C)) |

*MHz denotes microprocessor internal clock speed; other factors may affect application performance.

[†]GB means one billion bytes when referring to hard drive capacity. Accessible capacity may vary.

[‡] Due to FCC limitations, speeds of 53 kbps are the maximum-permissible transmit power levels during download transmissions. Actual data speeds vary depending on the line conditions.

Maximum speed for faxing is 14.4 kbps. Your modem is capable of downloading at 56 kbps using K56flex technology or V.90. Your online service or Internet Service Provider, however, may not support this technology or operate at this speed.

^{††} Certain restrictions apply.

Specifications are subject to change without notice.

This product meets the standards of the International Energy Star Program for energy efficiency.

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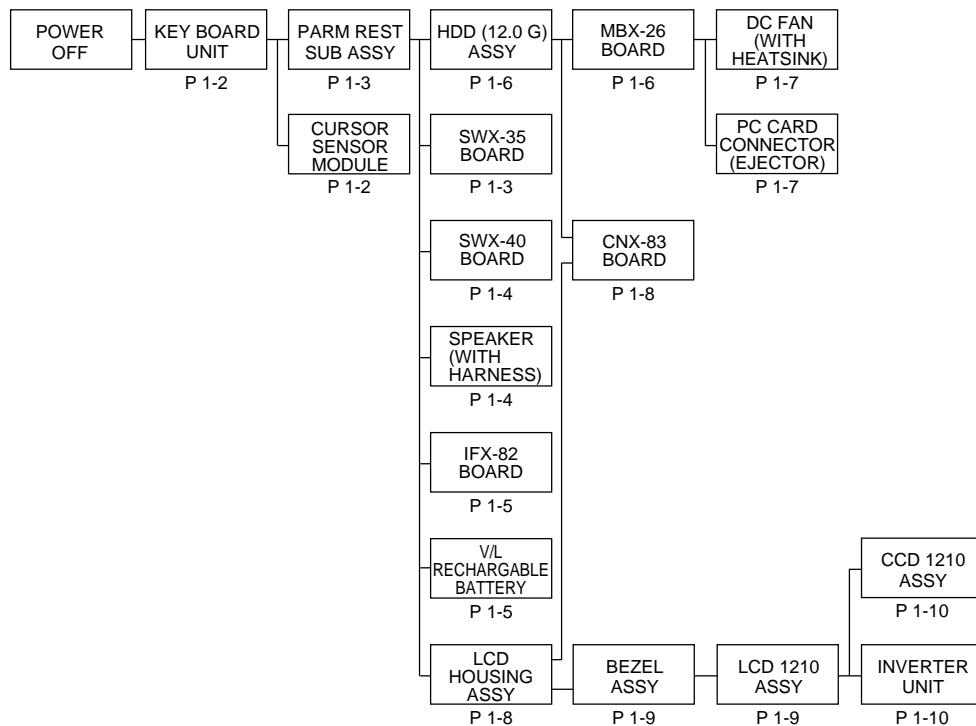
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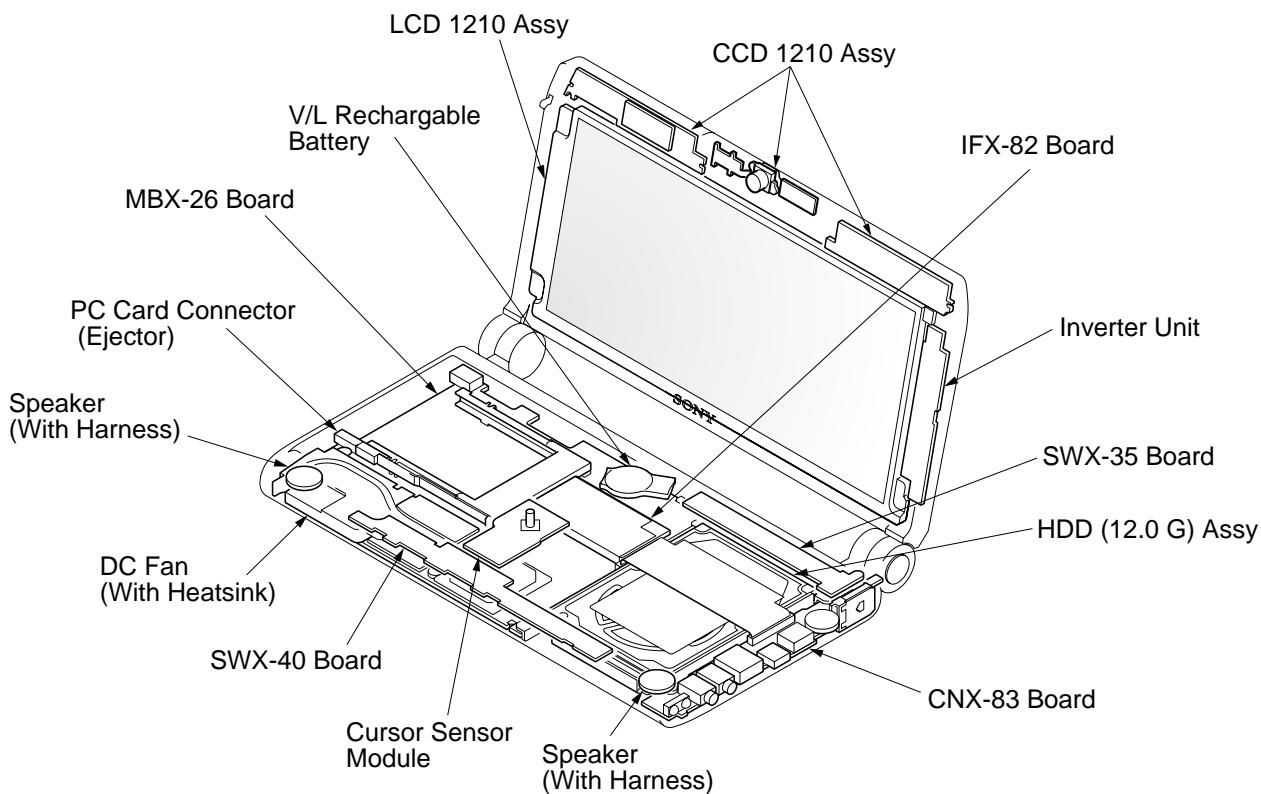
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SECTION 2**REMOVAL****1-1. Flowchart**

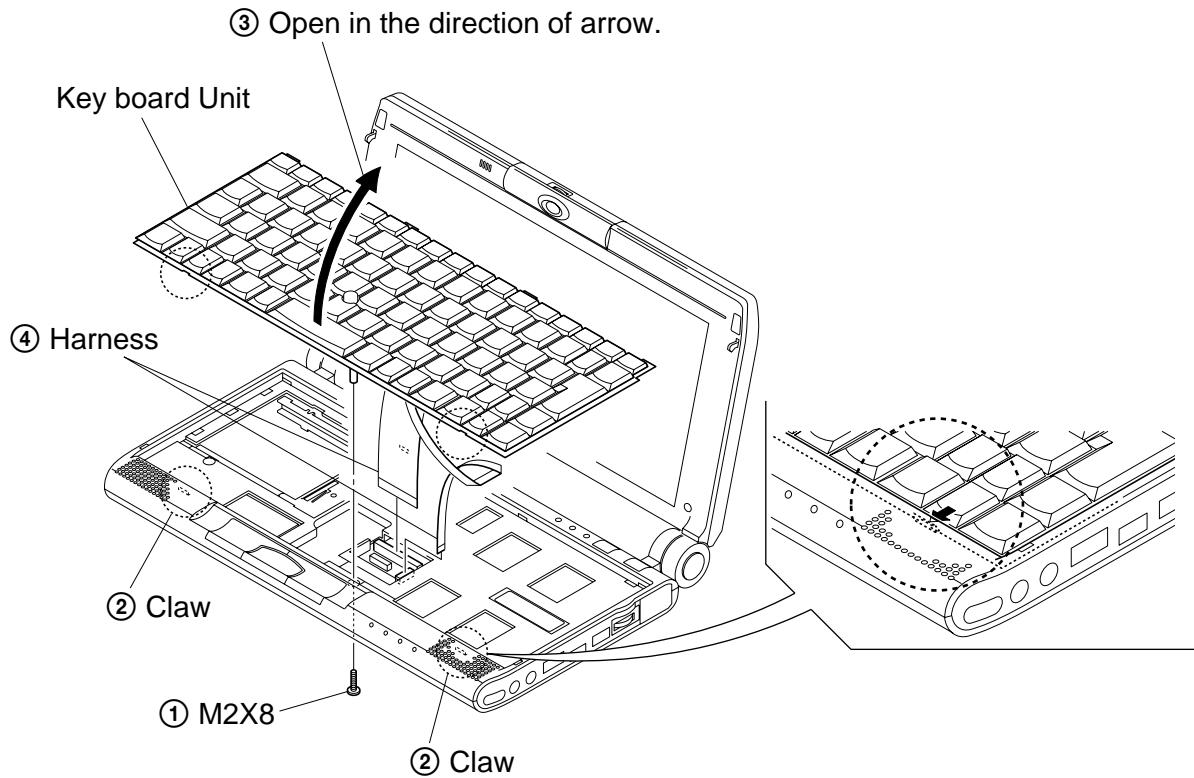
- P XX means pages that appears in this manual.
- Remember that hard disk drives are easily damaged by vibration. Always handle with care.

1-2. Main Electrical Parts Location Diagram

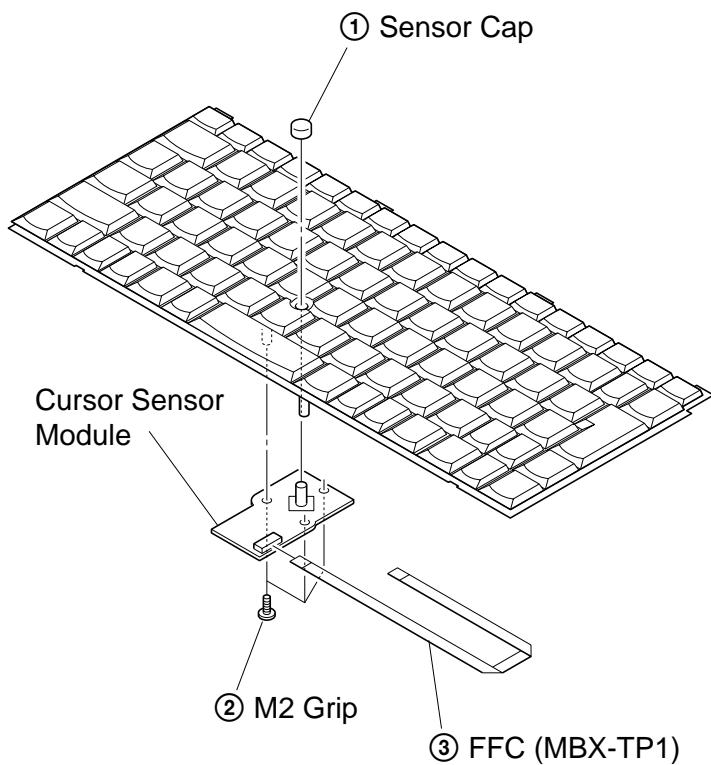
Confidential

1-3. Removal

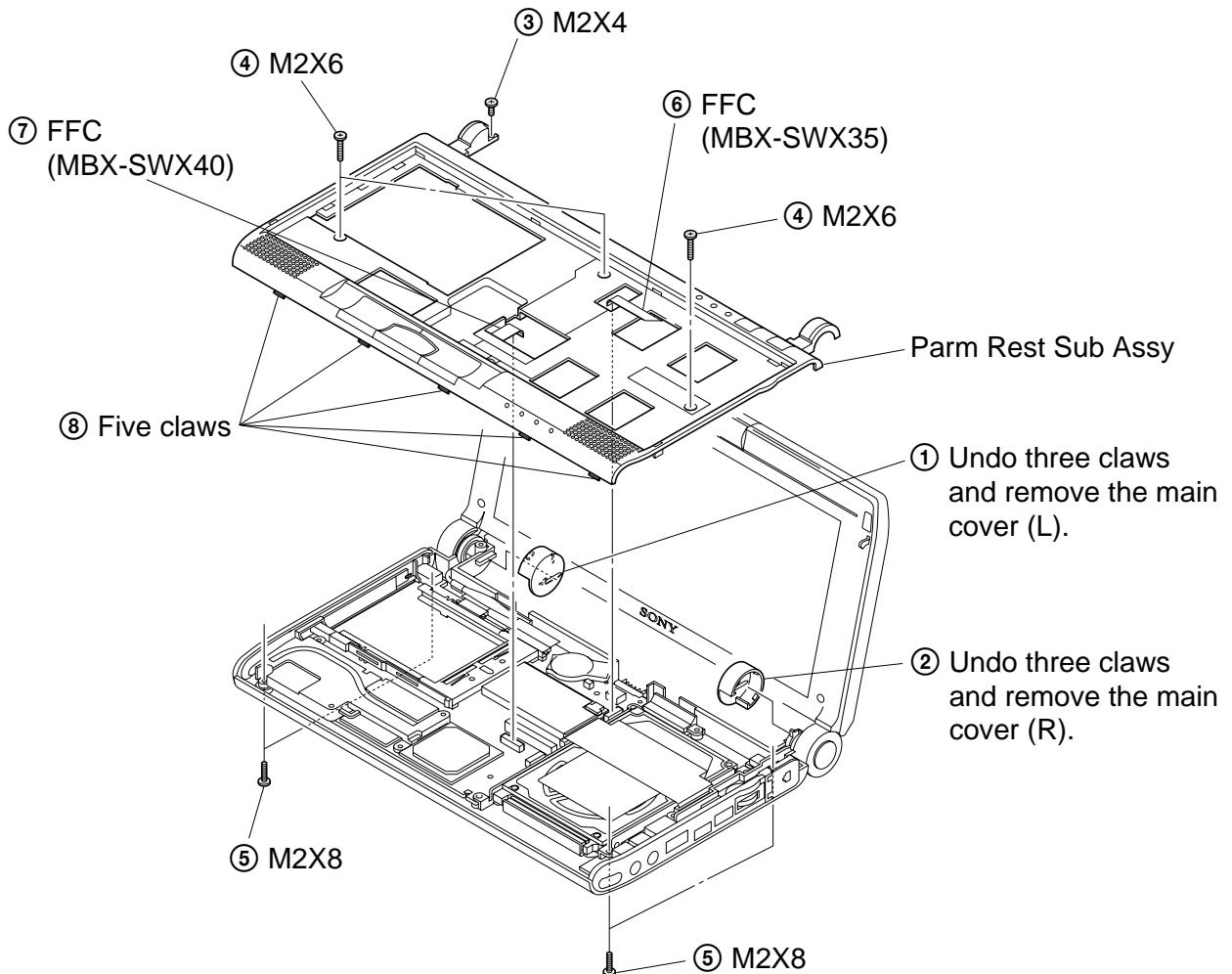
1. Keyboard Unit



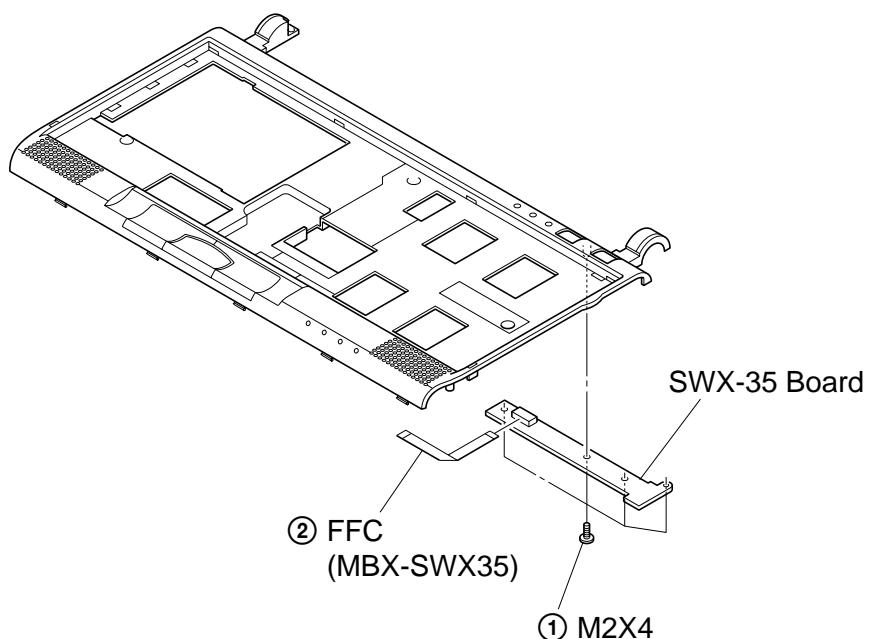
2. Cursor Sensor Module



3. Parm Rest Sub Assy

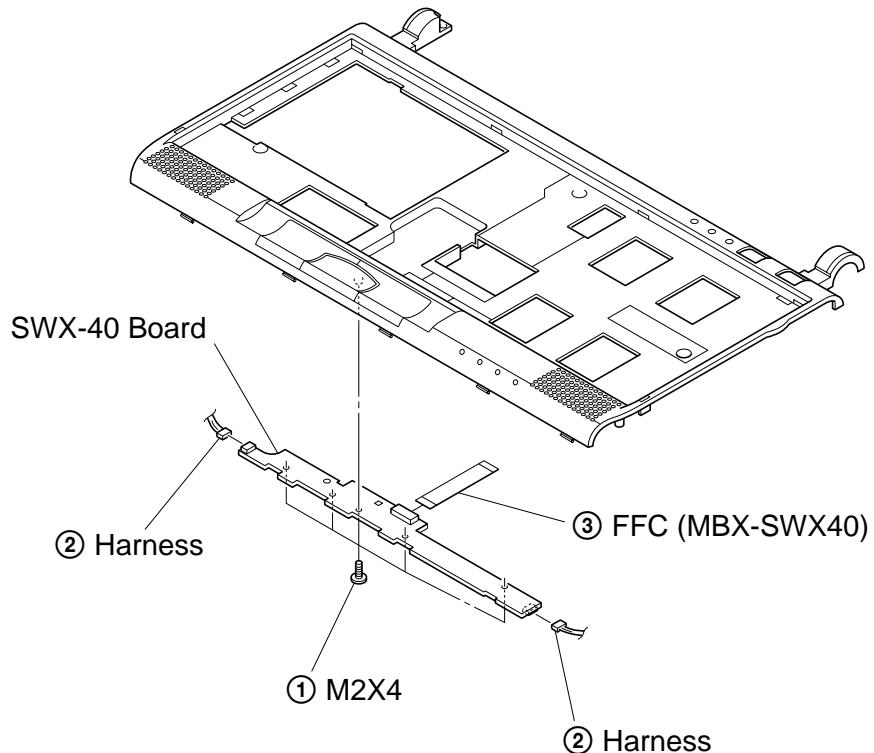


4. SWX-35 Board

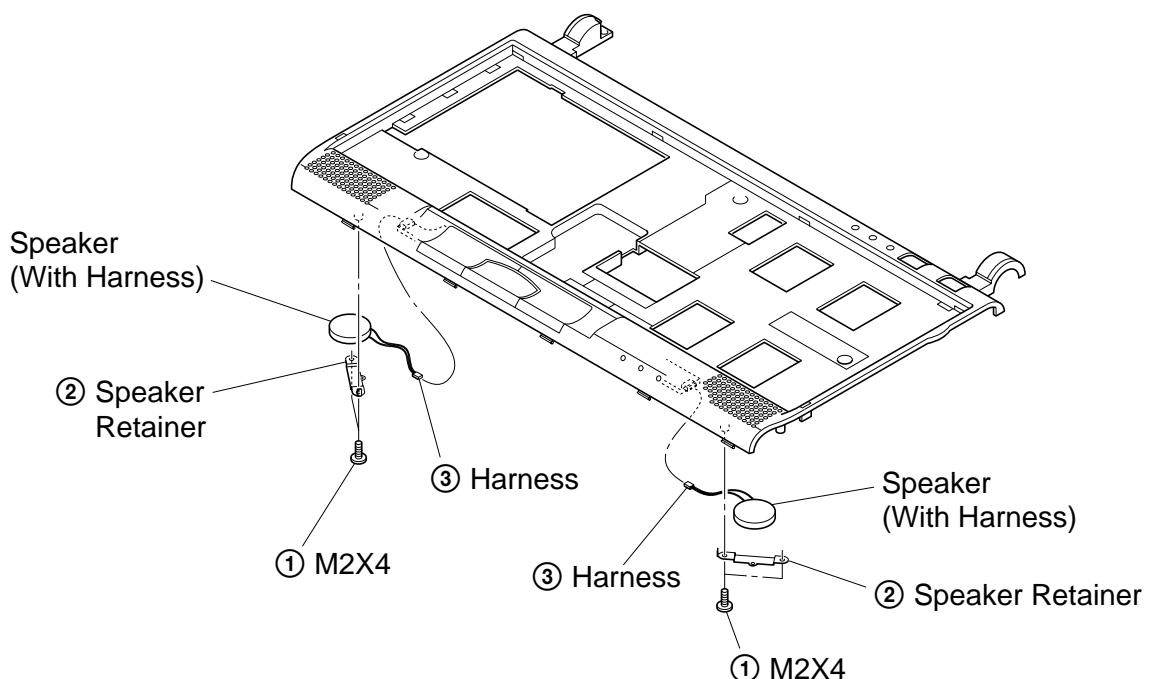


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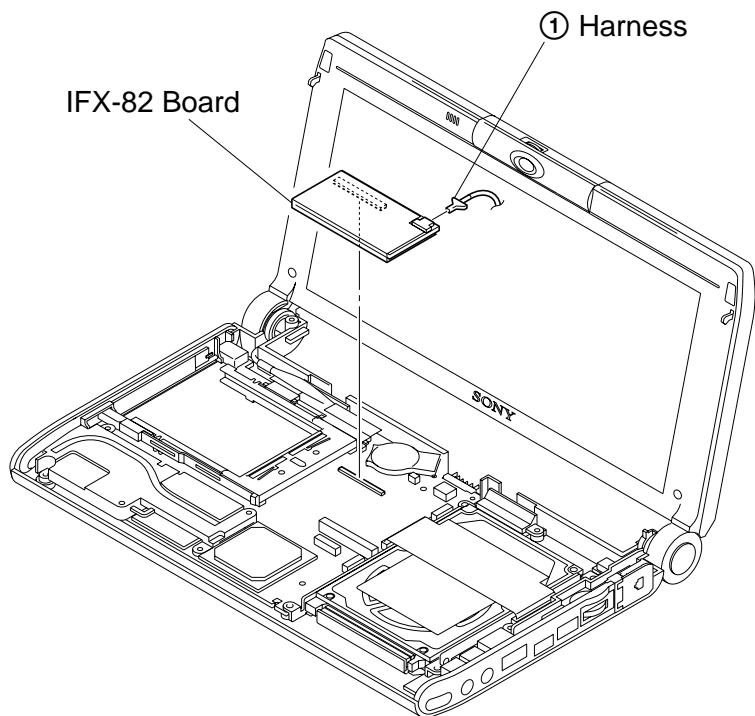
5. SWX-40 Board



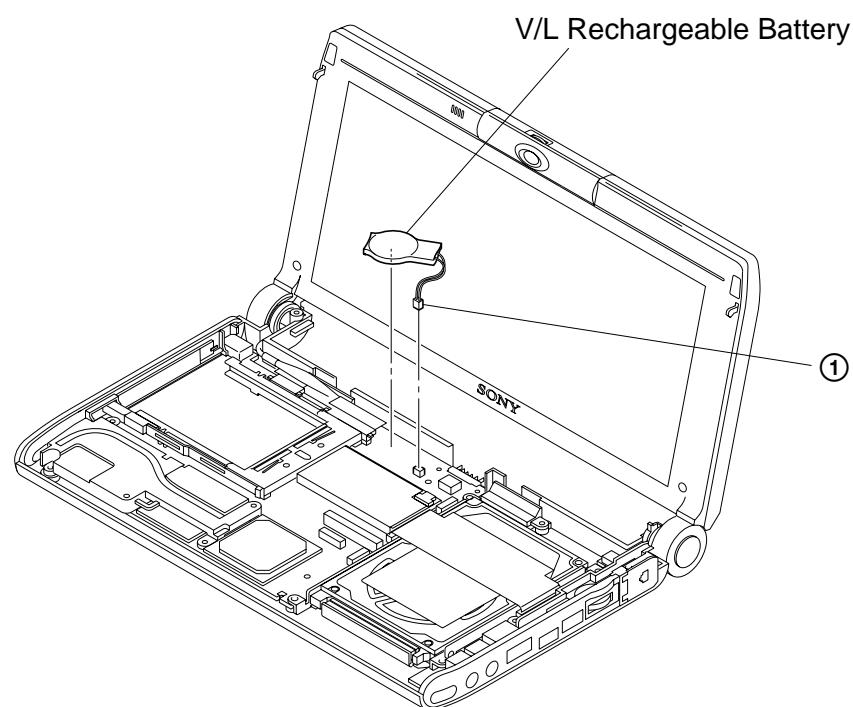
6. Speaker (With Harness)



7. IFX-82 Board

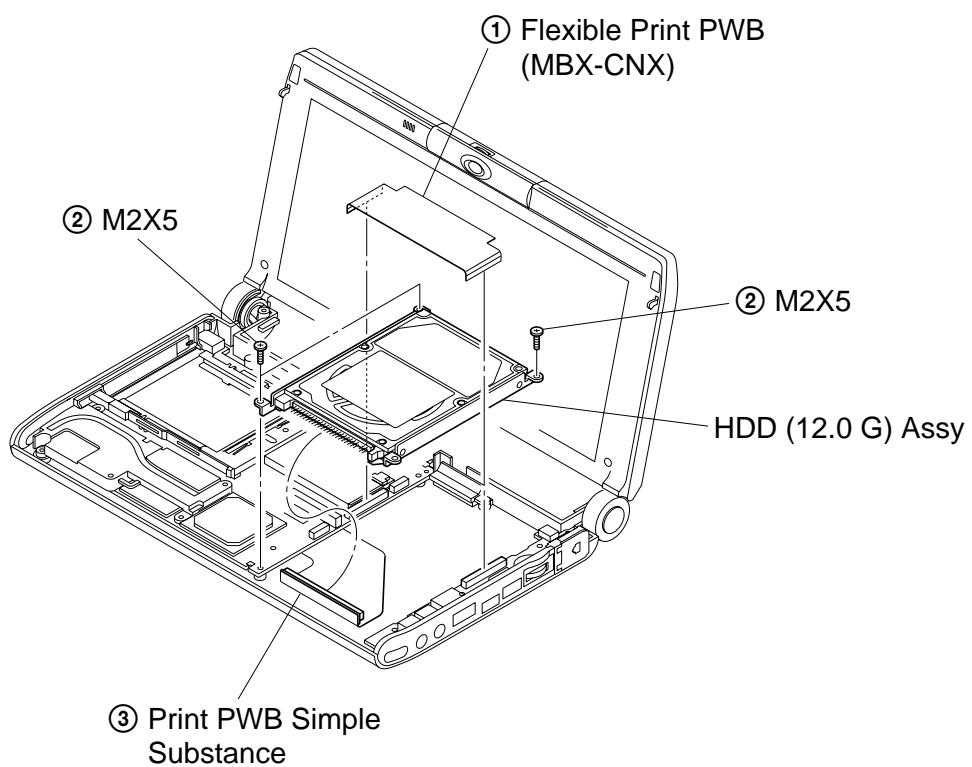


8. V/L Rechargeable Battery

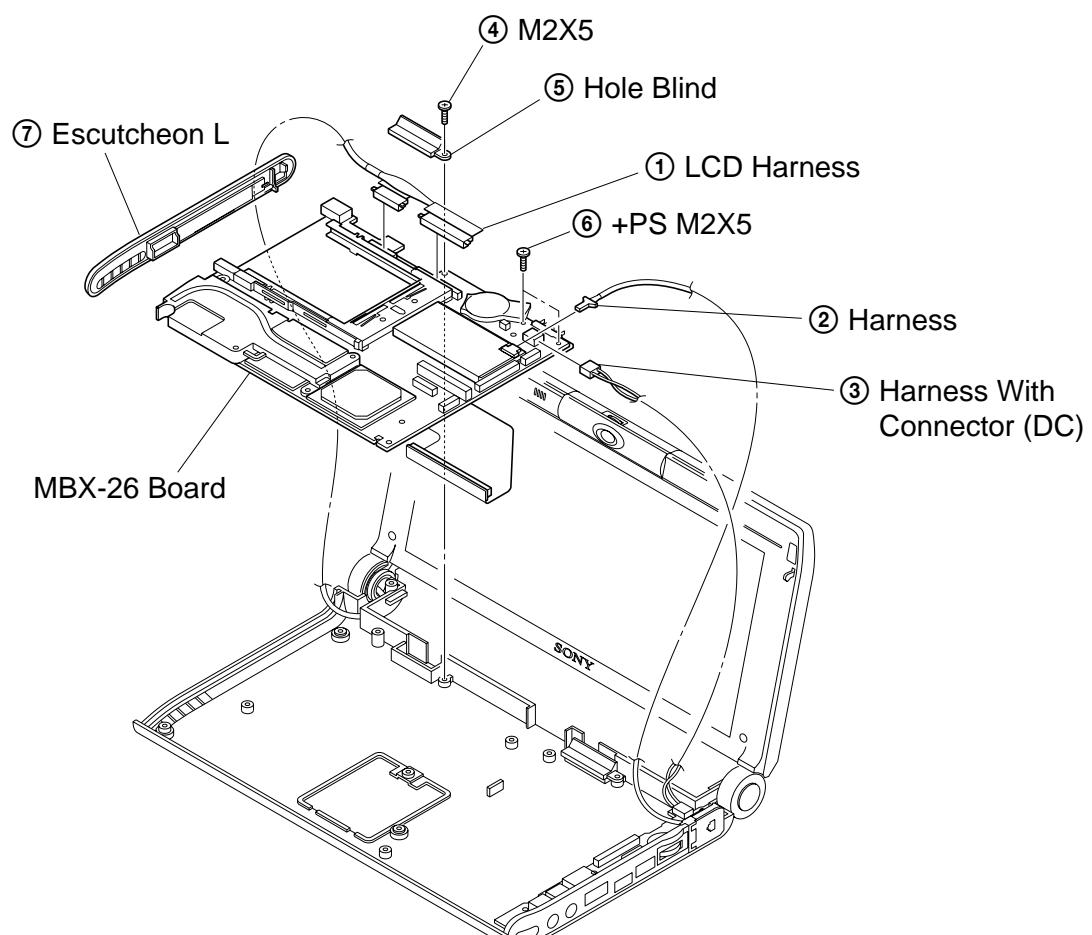


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9. HDD (12.0 G) Assy



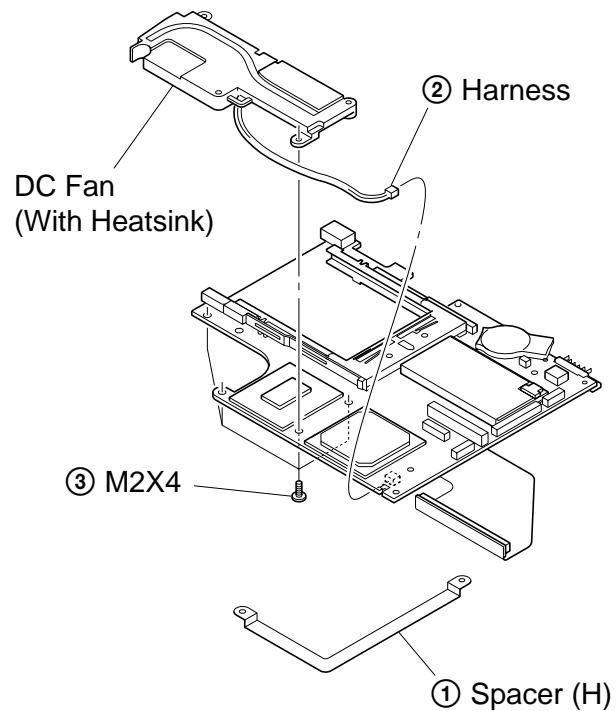
10. MBX-26 Board



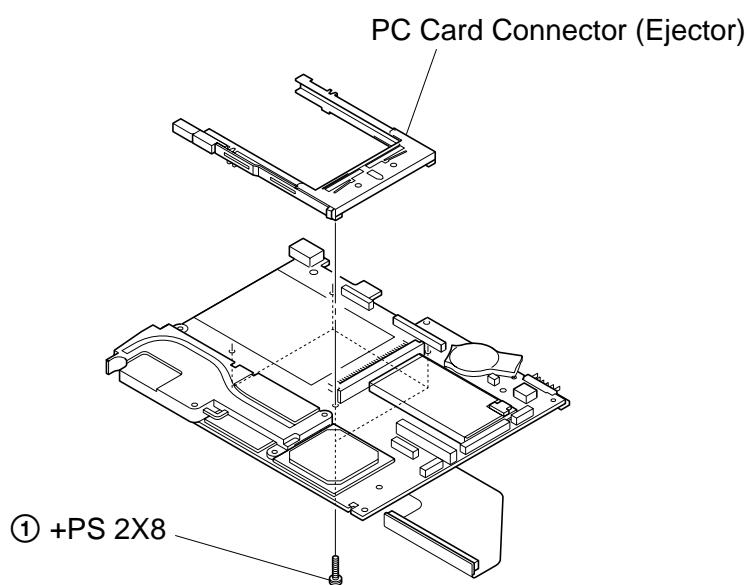
Confidential

PCG-C1XS (UC)

11. DC Fan (With Heat Sink)

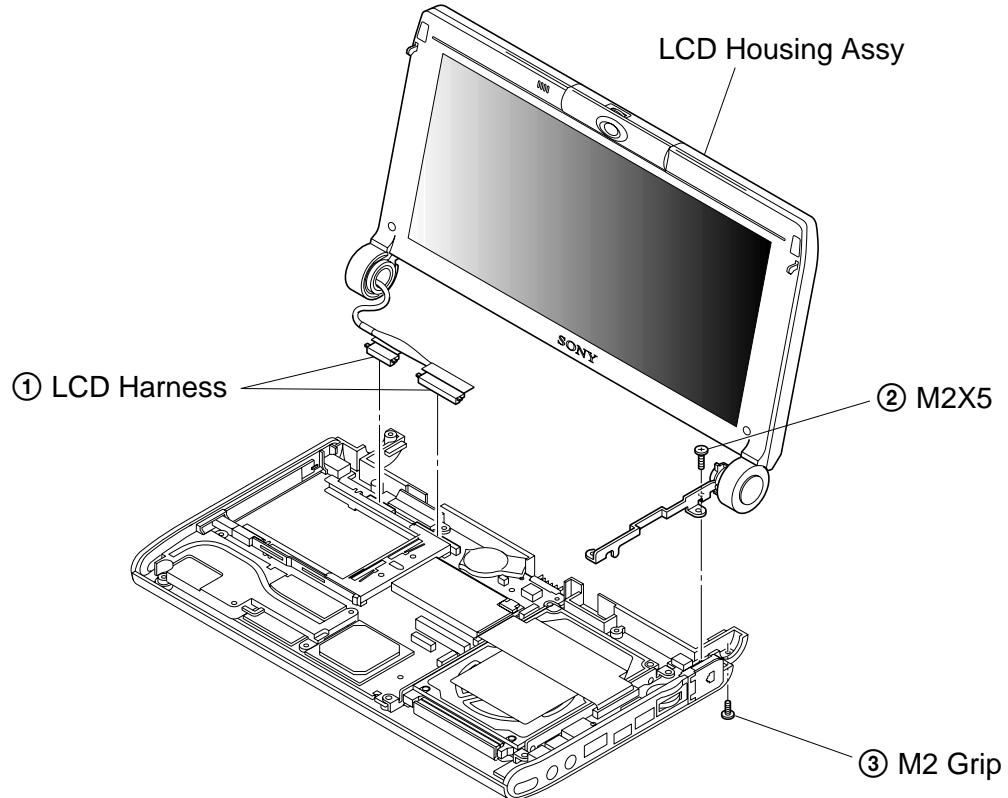


12. PC Card Connector (Ejector)

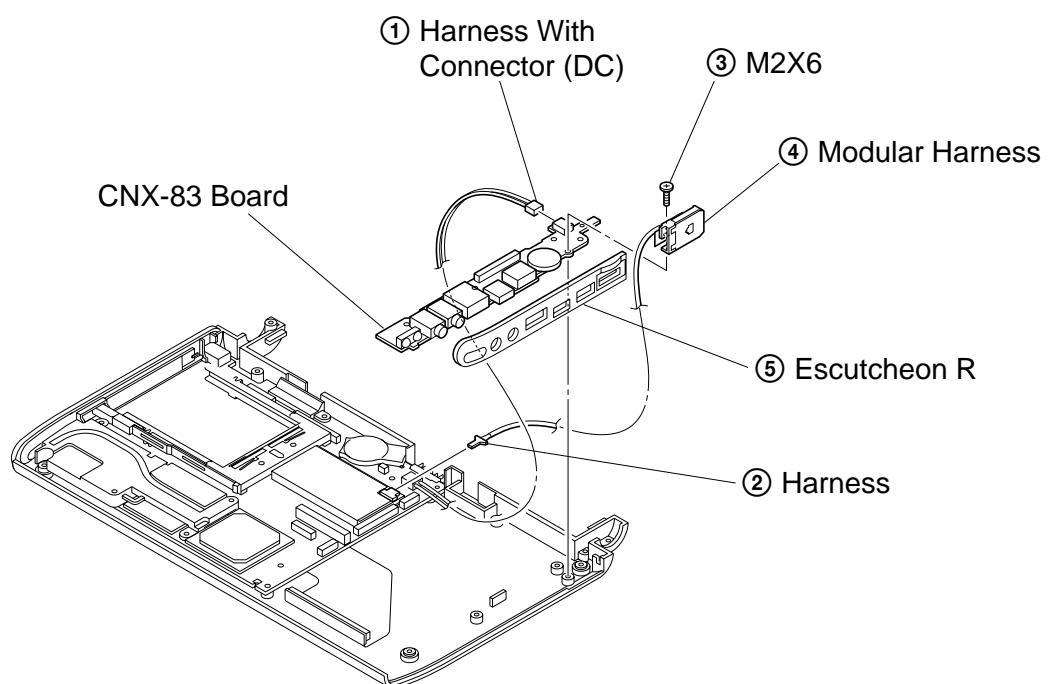


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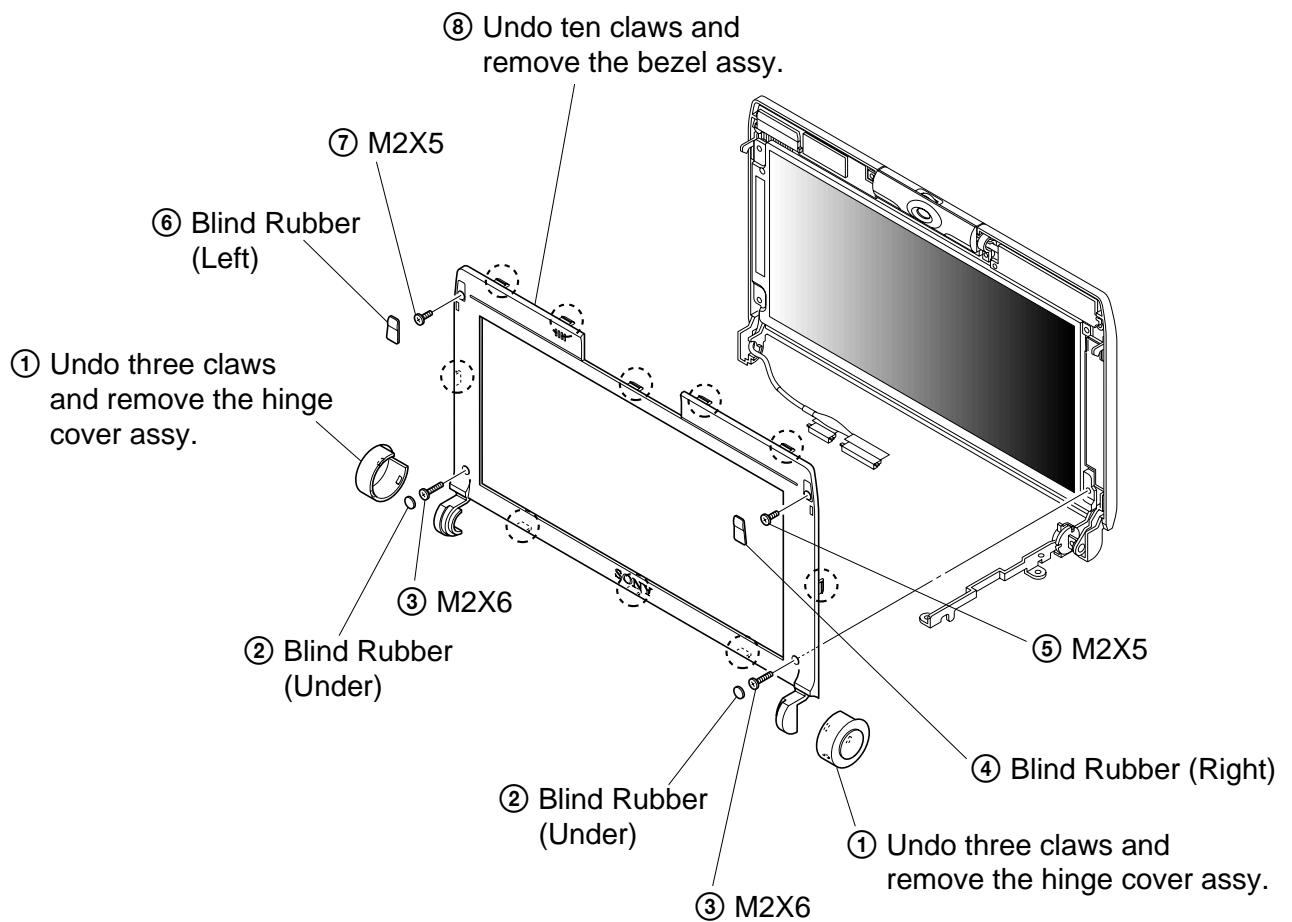
13. LCD Housing Assy



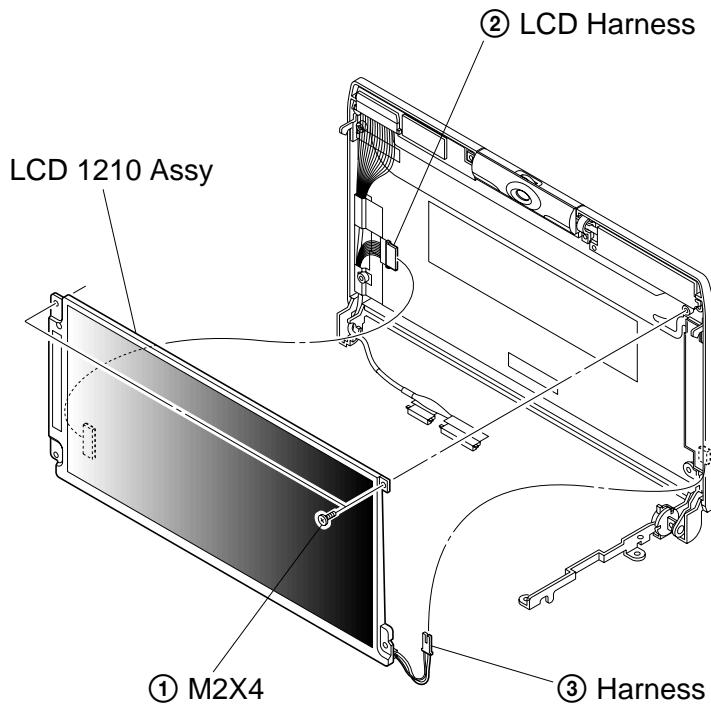
14. CNX-83 Board



15. Bezel Assy

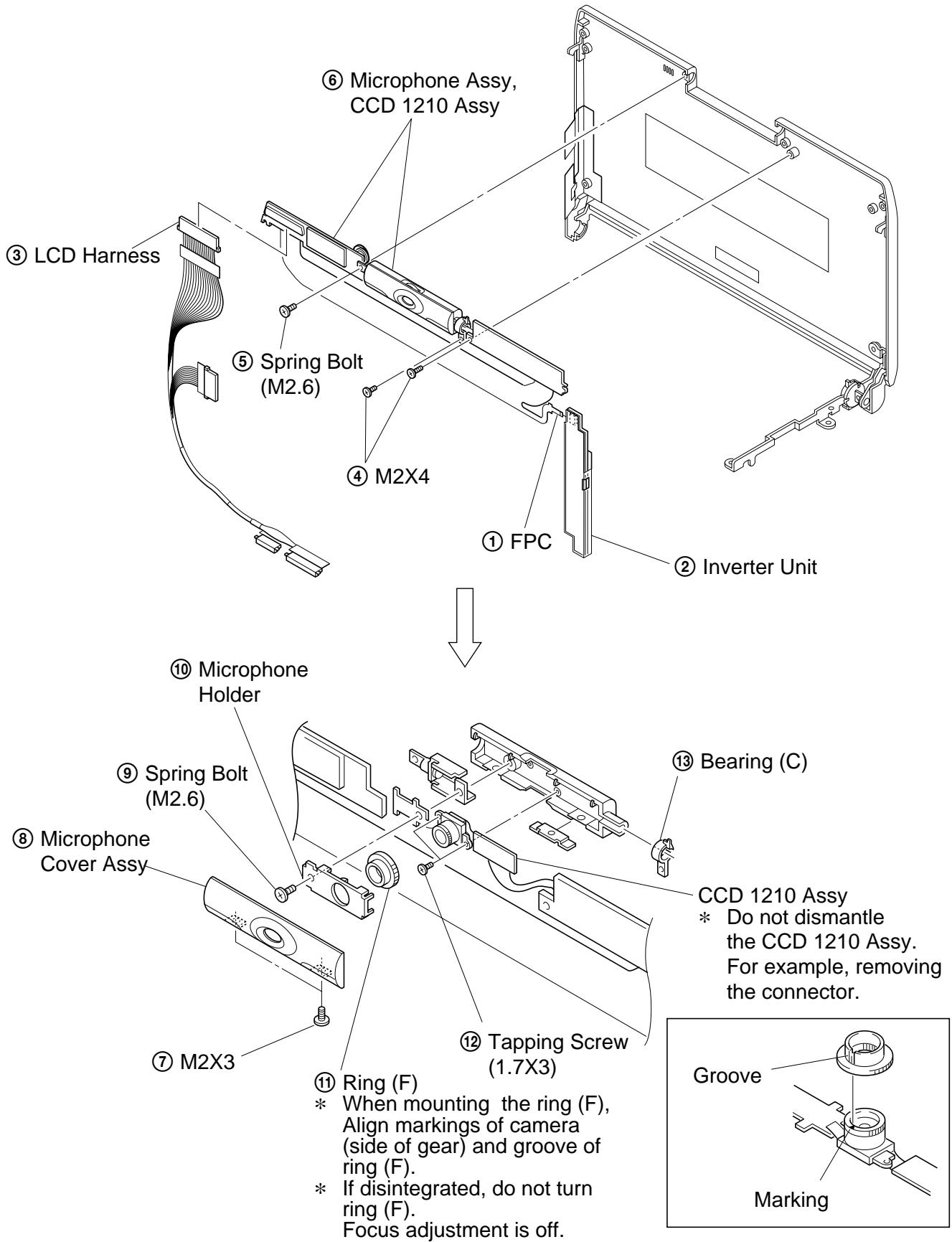


16. LCD 1210 Assy



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17. CCD 1210 Assy, Inverter Unit



CHAPTER 2.

SELF DIAGNOSTICS

2-1. Precautions

This self-diagnostic document covers the checking items and self test that can be done on the set and FDD & CD-ROM drives.

2-2. Necessary Tools

- PCG-C1XS set
- Floppy disk drive
- CD-ROM drive
- Battery
- AC adapter
- CD-ROM for self-diagnostics
- FD for self-diagnostics (DOS system required)
- Additional tools necessary for the test (Though all tools are not necessary, some items will not be tested without tools.)
- PCG-C1XS series (for IEEE 1394 interface and IrDA test)

2-3. Self-Diagnostics Program Start-up

Connect the FDD and CD-ROM drives, battery, and AC adapter to the PCG-C1XS set (hereinafter referred to as set).

Insert the FD for self- diagnostics and CD for self-diagnostics into the FDD and CD-ROM drives respectively.

2-4. Diagnostics Using the Self-Diagnostics Program

Insert the FD for self-diagnostics and CD for self-diagnostics into the FDD and CD-ROM drives respectively, then turn on the set.

The program will start from the CD, and the following screen appears.

- Self-Diagnostics (Diagnostics Menu)

Selecting the “1. Diagnostics” of the start menu causes the following screen to be displayed.



Select either item, and that part is diagnosed.

As certain items will require the operator to press a key or to listen to a sound, perform operation following the given instructions.

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* For the contents of test items, refer to the description given later.
(The contents may vary a little.)

When the test terminated successfully,

PASS

or, if the test terminated unsuccessfully

FAIL

is displayed.

2-5. Test Items

- Audio test Group

 Audio test.

 Though the detailed contents have not been fixed yet, the operator will be required to listen to the sounds to make judgment.

- Battery test...

 Battery charge/discharge test.

 Note that an error may occur if the battery capacity is low or full.

- Check System Bios Revision...

 BIOS version information, etc. are displayed.

 As this test always terminates successfully, the operator must judge pass or fail.

- Fan test...

 Fan test.

 The fan on/off, etc. are tested.

- FDD test...

 This test is conducted mainly to detect FDD failure.

 Place the FD for self-diagnostics in write enable status.

 Back up the FD as the contents may be destroyed in case of failure.

- HDD test...

 Hard disk test. The HDD recognition test is conducted by BIOS at the start-up.

- Keyboard test...

Key input test.

As the keyboard is displayed on the screen, press the keys one by one from the end in order.

For the Fn keys only, they cannot be recognized individually, and therefore press Fn key together with → key.

If there is an inactive key, press the ESC key twice to quit this test.

- IrDA test Group...

IrDA communication test.

PCG-C1XS for communication is necessary.

- LED test...

LEDs for Power, Battery, HDD, Information, NumLock, CapsLock, and ScrlLock light up in this order.

After confirmation, press the y key.

- Memory test Group...

The memory is tested.

The time required will vary depending on the memory capacity.

- Main system test...

The mother board is tested.

DMA, IRQ, CPU, etc. are checked.

- Track point

Position the cursor at a square and click the left button, then press the center button.

- Video test...

LCD screen is tested.

In the first half, the operator checks if the image is within the screen (whether the frame is seen) or if the pallet is correct.

In the later half, the self-diagnostic test (such as memory check) is conducted.

- Programmable power key test...

Programmable power key is tested.

Press the key once.

- IEEE 1394 Interface test...

IEEE 1394 communication test.

The PCG-C1XS in the Windows environment is required as a tool.

- Camera

Camera test.

Aim the camera at the rear to check if the image is displayed correctly, and also check the focusing.

Aim the camera at the front to check if the image is displayed correctly, and also check the focusing.

- Shutter button

Press the Shutter button to check if a half-pressing and a full-pressing are recognized correctly.

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- Aging (short time) test...

The memory and main system are tested.

This test takes about 15 minutes.

- Aging (long time) test...

The memory and main system are repeatedly tested.

This test takes about 10 hours.

- Aging with HDD test group...

The contents of HDD are destroyed in the HDD test contained in this aging test.

- (1) Short time test...

The memory and main system are tested.

This test takes about 4 hours.

- (2) Long time test...

The memory and main system are repeatedly tested.

This test takes about 10 hours.

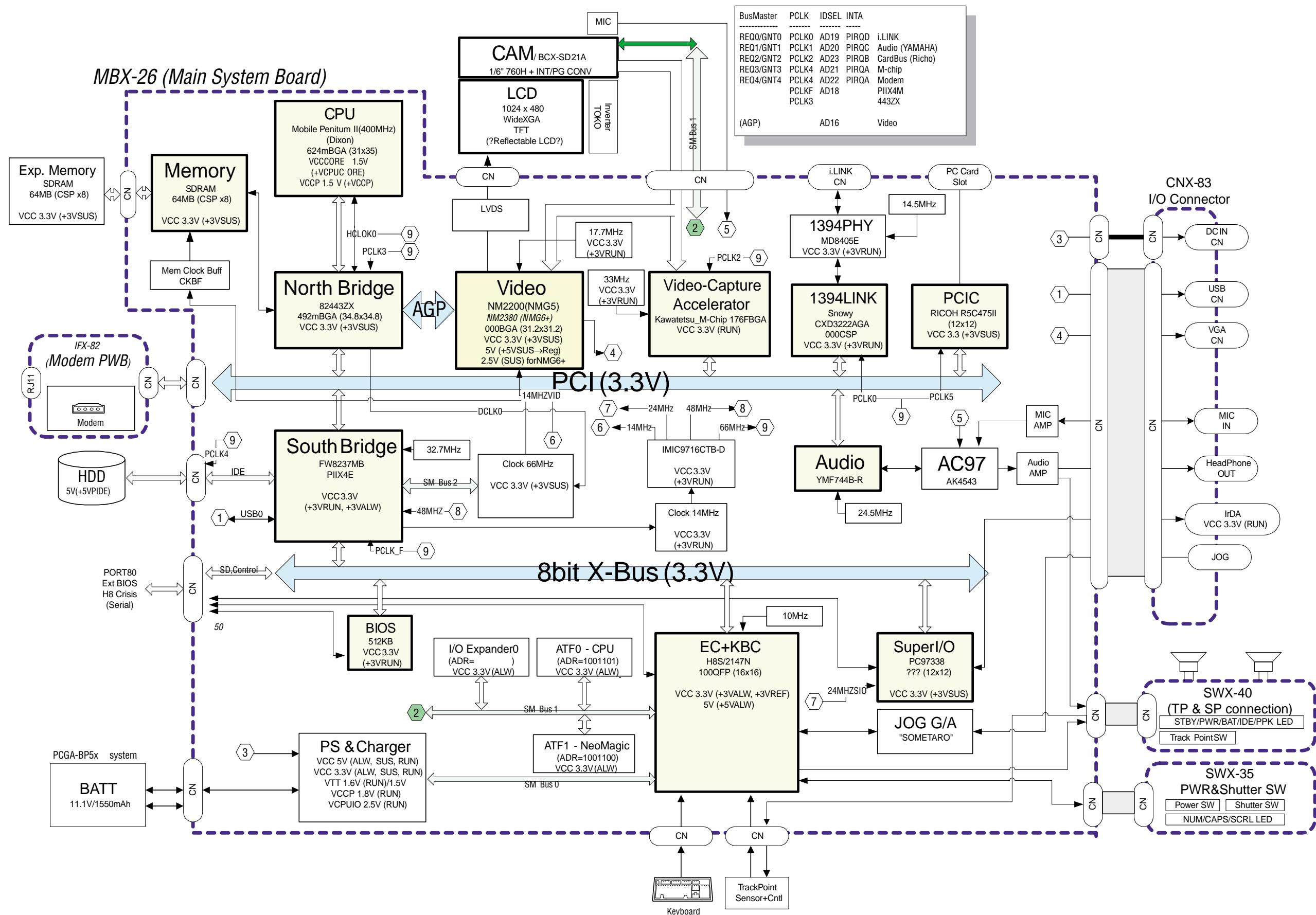
2-6. On Other Tests that Cannot Be Supported

- PCMCIA test

The 16bit PC-CARD test is substituted by using the CD-ROM. The CardBUS and ZV tests need tools, and therefore they cannot be tested.

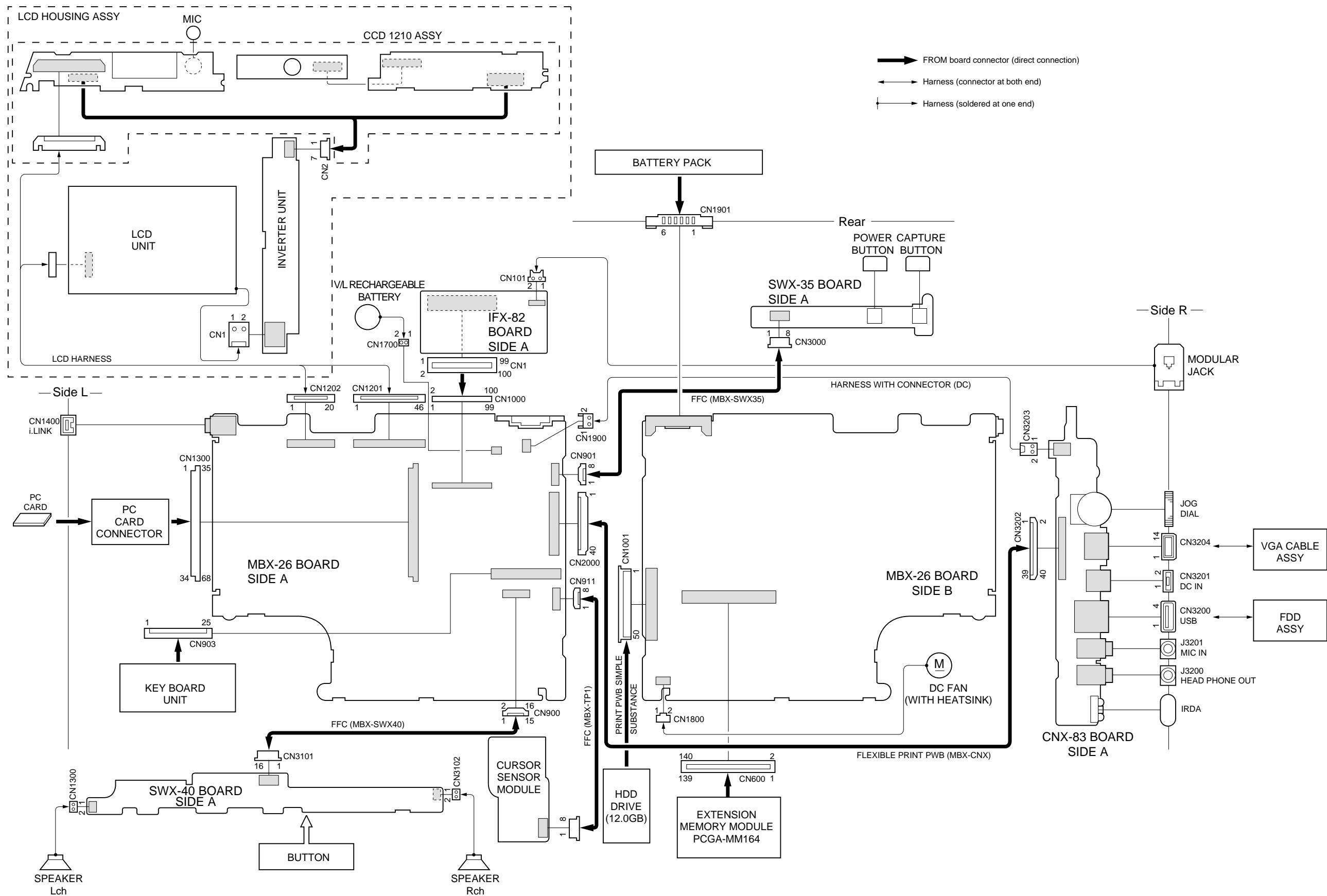
CHAPTER 3.

BLOCK DIAGRAM



CHAPTER 4.

FRAME HARNESS DIAGRAM



CHAPTER 5.

EXPLODED VIEWS AND PARTS LIST

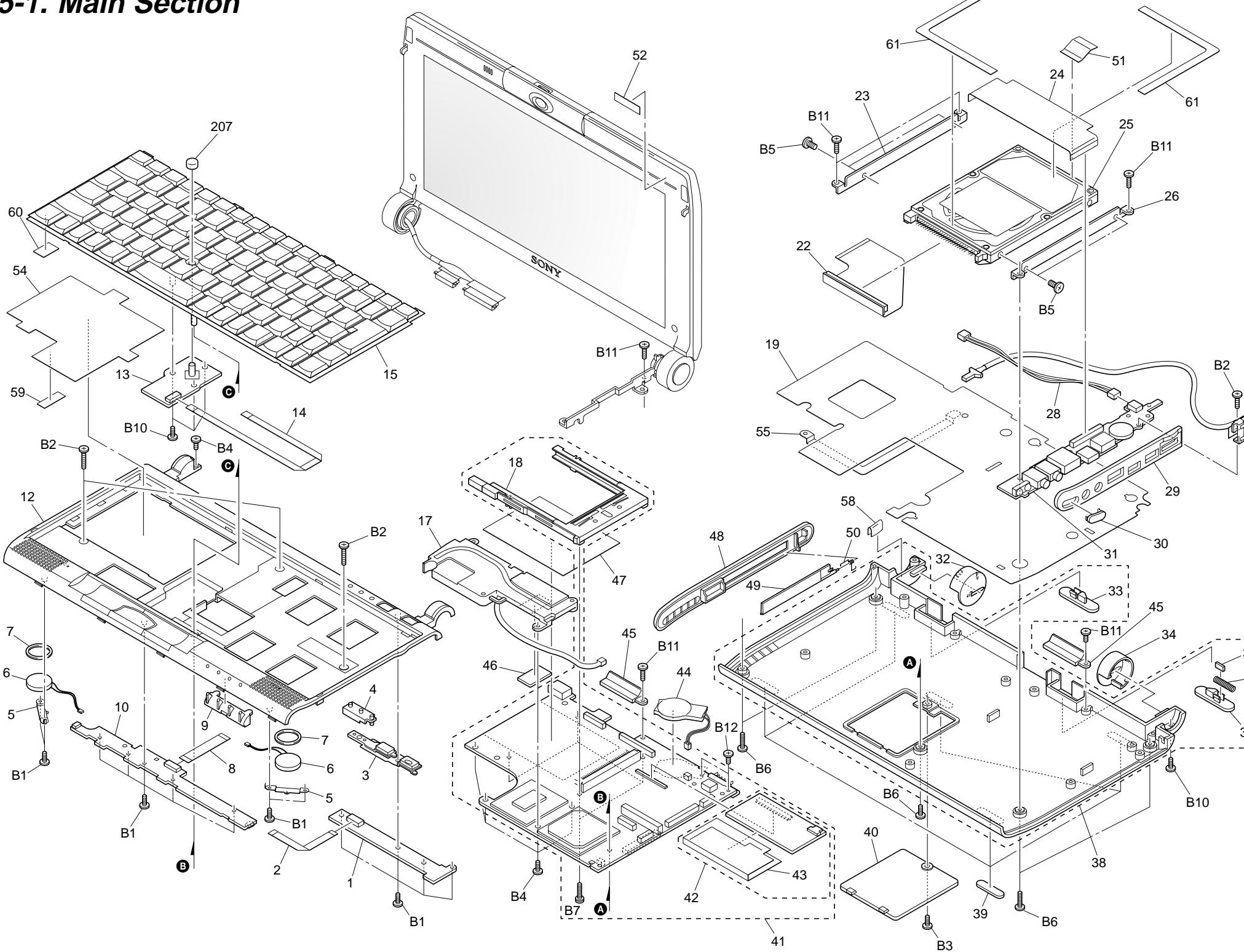
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The parts with ♦ marking are stocked at the Division.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

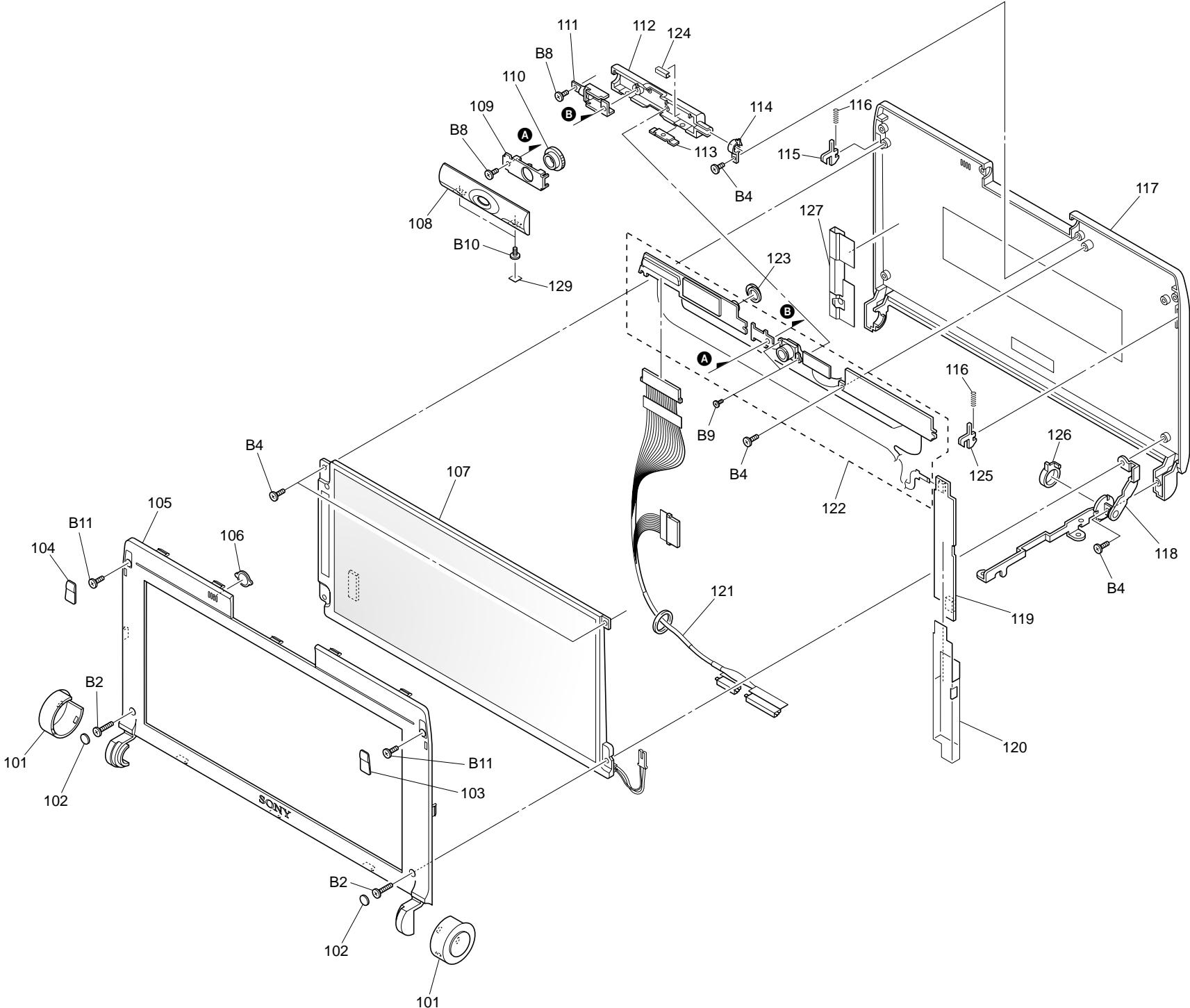
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. Main Section



| Ref. No. | Part No. | Description |
|----------|----------------|-------------------------------|
| 1 | A-8056-613-A ♦ | SWX-35 MOUNTED PWB (S) |
| 2 | 1-791-605-11 | FFC (MBX-SW1) |
| 3 | 4-643-063-01 | BUTTON, POWER |
| 4 | 4-643-026-01 | LED (KEY BOARD) |
| 5 | 4-643-045-01 | RETAINER, SPEAKER |
| 6 | 1-529-508-11 | SPEAKER (WITH HARNESS) |
| 7 | 4-643-073-01 | SCHEET (SPEAKER), ADHESIVE |
| 8 | 1-791-607-12 | FFC (MBX-SW1) |
| 9 | 4-643-100-01 | LED (POWER) |
| 10 | A-8056-614-A ♦ | SWX-40 MOUNTED PWB (S) |
| 12 | X-4622-682-1 | REST SUB ASSY, PARM |
| 13 | 1-772-335-11 | SENSOR MODULE, CURSOR |
| 14 | 1-791-606-11 | FFC (MBX-TP1) |
| 15 | 1-418-674-22 | KEY BOARD UNIT |
| 17 | 1-763-426-11 | FAN, DC (WITH HEATSINK) |
| 18 | 1-793-637-11 | CONNECTOR, PC CARD (EJECTOR) |
| 19 | 4-643-030-02 | INSULATING SHEET |
| 22 | 1-791-650-11 | SUBSTANCE, PRINT PWB SIMPLE |
| * 23 | 4-643-048-01 | BRACKET (L), HDD |
| 24 | 1-791-618-12 | PWB, FLEXIBLE PRINT (MBX-CNX) |
| 25 | 1-772-357-11 ♦ | HDD (12.0GB) |
| * 26 | 4-643-049-01 | BRACKET (R), HDD |
| 27 | 1-959-997-12 | HARNESS, MODULAR |
| 28 | 1-791-608-11 | CONNECTOR, HARNESS WITH (DC) |
| 29 | 4-643-043-01 | ESCUTCHEON (R) |
| 30 | 4-643-027-02 | WINDOW, IRDA |
| 31 | A-8056-615-A ♦ | CNX-83 MOUNTED PWB (S) |
| 32 | 4-643-040-01 | COVER (L), MAIN |
| 33 | 4-635-918-03 | KNOB (BL) |
| 34 | 4-643-041-01 | COVER (R), MAIN |
| 35 | 4-636-934-01 | SPACER (SPRING) |
| 36 | 4-635-956-01 | SPRING (B), COMPRESSION COIL |
| 37 | 4-635-919-03 | KNOB (BR) |
| 38 | X-4622-639-1 | CABINET SUB ASSY, BOTTOM |
| 39 | 4-635-946-11 | FOOT |
| 40 | 4-643-028-01 | LID, MEMORY |
| 41 | A-8046-449-A ♦ | MBX-26 1250J/U ASSY (S) |
| 42 | A-8056-616-A ♦ | IFX-82 MOUNTED PWB (S) |
| 43 | 4-643-811-03 | SCHEET (IFX), INSULATING |
| 44 | 1-528-984-21 | BATTERY, V/L RECHARGEABLE |
| 45 | 4-643-046-01 | BLIND, HOLE |
| 46 | 4-643-074-01 | SCHEET (C), THERMAL |
| 47 | 4-644-218-02 | SCHEET (CARD SLOT), BLIND |
| 48 | 4-643-042-01 | ESCUTCHEON L |
| 49 | 4-643-044-02 | COVER, SLOT |
| 50 | 4-643-050-01 | SPRING, TORSION |
| 51 | 4-644-561-01 | CLAMP (DC) |
| 52 | 4-645-801-11 | LABEL (ID) |
| * 54 | 4-646-035-01 | HEATSINK (CARD SLOT) |
| * 55 | 4-646-036-01 | SPACER (H) |
| 58 | 4-645-941-01 | GASKET (RING) |
| 59 | 4-640-515-21 | GASKET |
| 60 | 4-641-838-01 | CUSHION (SP) |
| 61 | 4-646-984-01 | SCHEET(HDD) |
| B1 | 4-639-112-01 | SCREW M2X4 |
| B2 | 4-644-002-21 | SCREW M2 (SB) |
| B3 | 4-644-002-11 | SCREW M2 (SB) |
| B4 | 4-644-002-01 | SCREW M2 (SB) |
| B5 | 4-635-301-01 | SCREW M3X4 |
| B6 | 4-644-637-01 | SCREW M 2X8 |
| B7 | 7-628-253-35 | SCREW +PS 2X8 |
| B10 | 4-645-214-01 | GRIP, M2 |
| B11 | 4-644-002-31 | SCREW M2 (SB) |
| B12 | 7-628-253-10 | SCREW +PS M2X5 |

5-2. LCD Section



| <u>Ref.No.</u> | <u>Part No.</u> | <u>Description</u> |
|----------------|-----------------|-------------------------------|
| 101 | X-4622-404-1 | COVER ASSY, HINGE |
| 102 | 4-643-078-01 | RUBBER (UNDER), BLIND |
| 103 | 4-643-076-01 | RUBBER (RIGHT), BLIND |
| 104 | 4-643-077-01 | RUBBER (LEFT), BLIND |
| 105 | X-4622-406-2 | BEZEL ASSY |
| 106 | 4-644-102-01 | INSULATOR (UPPER), MICROPHONE |
| 107 | A-8046-178-A ♦ | LCD 1210 ASSY (S) |
| 108 | X-4622-314-1 | COVER ASSY, MICROPHONE |
| 109 | 4-643-033-02 | HOLDER, MICROPHONE |
| 110 | 4-643-080-01 | RING (F) |
| 111 | 4-643-066-02 | HINGE (C) |
| 112 | 4-643-067-03 | CABINET, MICROPHONE |
| 113 | 4-643-034-01 | NUT (MIC), PLATE |
| 114 | 4-643-079-02 | BEARING (C) |
| 115 | 4-643-035-01 | LATCH (L) |
| 116 | 4-643-051-01 | SPRING, COMPRESSION |
| 117 | X-4622-312-1 | HOUSING ASSY |
| 118 | 4-643-081-01 | HINGE (LCD) |
| 119 | 1-418-647-11 | INVERTER UNIT |
| 120 | 4-643-064-02 | INSULATING SHEET (INVERTER) |
| 121 | 1-960-040-12 | HARNESS, LCD |
| 122 | A-8046-960-A ♦ | CCD 1250 ASSY (S) |
| 123 | 4-644-103-01 | INSULATOR (UNDER), MICROPHONE |
| * 124 | 4-645-340-01 | GUARD, CABLE |
| 125 | 4-643-029-01 | LATCH (R) |
| 126 | 4-643-072-02 | LEVER, SWITCH |
| 127 | 4-643-038-01 | CLAMP |
| 129 | 4-643-812-01 | PLATE (MICROPHONE), BLIND |
| B2 | 4-644-002-21 | SCREW M2 (SB) |
| B4 | 4-644-002-01 | SCREW M2 (SB) |
| * B8 | 4-640-695-11 | BOLT (M2.6), SPRING |
| B9 | 3-318-382-21 | SCREW (1.7X3), TAPPING |
| B10 | 4-645-214-01 | GRIP, M2 |
| B11 | 4-644-002-31 | SCREW M2 (SB) |

- * Do not dismantle the CCD 1210 assy (122).
For example, removing the connector.
- * When mounting the ring (F) (110), align markings of camera
(side of gear) and groove of ring (F).
- * If disintegrated, do not turn ring (F) (110).
Focus adjustment is off.

5-3. Accessories

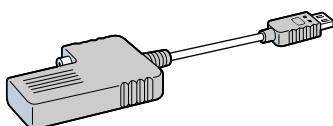
201

Floppy Disk Drive (1)



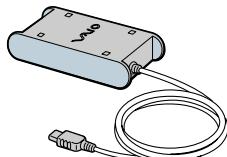
202

Display Adaptor (1)



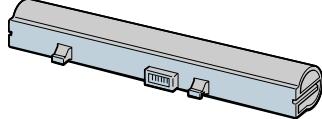
203

AC Adaptor (1)



204

Battery Pack (1)



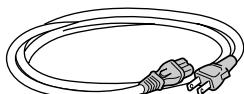
205

Telephone Cord (1)



206

Power cord (1)



207

Spare cap (for Stick) (2)



| Ref.No. | Part No. | Description |
|---------|----------|-------------|
|---------|----------|-------------|

ACCESSORIES

| | | |
|-------|----------------|-------------------------------|
| 201 | A-8046-288-A ♦ | FDD ASSY (s) |
| 202 | A-8016-338-A | CABLE ASSY, VGA |
| △203 | 1-418-518-11 ♦ | ADAPTOR, A. C. |
| 204 | 1-756-074-11 ♦ | BATTERY PACK, LITHIUM ION (S) |
| * 205 | 1-777-926-31 | CORD, CONNECTION |
| △206 | 1-782-614-31 | CORD, POWER |
| 207 | 4-643-958-01 | CAP (IN BAG), SENSOR |
| | 4-646-022-11 | USER GUIDE |
| | 4-646-023-11 | READ ME FIRST |

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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